85-946

No.

Supreme Court, U.S.
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1985

KERR-MCGEE CORPORATION,
a Delaware Corporation, and
KERR-MCGEE NUCLEAR CORPORATION,
a Delaware Corporation,
Petitioners,

v.

BILL M. SILKWOOD, Administrator of the Estate of
Karen G. Silkwood, deceased,
Respondent.

APPENDICES TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE TENTH CIRCUIT

ELLIOTT C. FENTON
FENTON, FENTON, SMITH,
RENEAU & MOON
405 Midland Center
Oklahoma City, OK 73102
(405) 235-4671

TOM J. MCDANIEL
Kerr-McGee Center
Oklahoma City, OK 73102
(405) 270-2847

PETER J. NICKLES *
WILLIAM P. SKINNER
ELLIOTT SCHULDER
SAMUEL M. FORSTEIN
DAVID P. KING
COVINGTON & BURLING
1201 Pennsylvania Ave., N.W.
P.O. Box 7566
Washington, D.C. 20044
(202) 662-6000

L. E. STRINGER
JOHN J. GRIFFIN, JR.
CROWE & DUNLEVY
1800 Mid-America Tower
20 North Broadway
Oklahoma City, OK 73102
(405) 235-7000

Attorneys for Petitioners

* *Counsel of Record*

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TABLE OF CONTENTS

	Page
Appendix A	1a
Appendix B	40a
Appendix C	91a
Appendix D	131a
Appendix E	219a

APPENDIX A

UNITED STATES COURT OF APPEALS
TENTH CIRCUIT

No. 79-1894

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Plaintiff-Appellee,

v.

KERR-MCGEE CORPORATION, a Delaware corporation, and KERR-MCGEE NUCLEAR CORPORATION, a Delaware corporation,
Defendants-Appellants.

July 31, 1985

Before McKAY, DOYLE and LOGAN, Circuit Judges.

McKAY, Circuit Judge.

This case is before our court on remand from the Supreme Court of the United States. Defendants Kerr-McGee Corporation and Kerr-McGee Nuclear Corporation (hereinafter collectively referred to as Kerr-McGee) appeal from judgments awarded against them in a suit brought by plaintiff Bill M. Silkwood as administrator of the estate of Karen Silkwood, deceased. The action, a diversity suit tried before a jury, was based upon common-law tort principles [1] under Oklahoma law. Plain-

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[1] Civil Rights Act and federal constitutional claims were also asserted in the original petition. The trial court's dismissal of

tiff sought recovery for personal injury (primarily fear and anxiety) and property damage suffered by Ms. Silkwood as a result of plutonium contamination. The contamination occurred November 5, 6, and 7, 1974. Ms. Silkwood's death in an unrelated automobile accident on November 13, 1974 marked the end of any damages she did suffer and precluded any damages she might have suffered had she lived beyond that date. The jury awarded $500,000 on plaintiff's personal injury claim and $5,000 on his property claim. It also awarded $10,000,000 in punitive damages.[2]

In our initial opinion[3] we reversed the personal injury judgment, holding that recovery for those injuries was controlled exclusively by the Oklahoma Workers' Compensation Act, Okla.Stat.Ann. tit. 85 (West 1971 & Supp.1980). We affirmed the property damage judgment, holding that the Oklahoma Act applied only to personal injuries. Finally, we reversed the punitive damages judgment, holding that the award of such damages constituted state action that competed substantially with the federal statutory regulation of the Kerr-McGee plant.

Neither our affirmance of the property damages judgment nor our reversal of the personal injury judgment was appealed. Plaintiff did, however, appeal our reversal of the punitive damages judgment. Our decision in that regard was reversed by the Supreme Court, which concluded that the award of punitive damages in this case is not preempted by federal law.[4] The Court remanded,

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those claims was affirmed in a separate appeal. *Silkwood v. Kerr-McGee Corp.*, 637 F.2d 743 (10th Cir. 1980), *cert. denied*, 454 U.S. 833, 102 S.Ct. 132, 70 L.Ed.2d 111 (1981).

[2] The opinion of the trial court overruling Kerr-McGee's post-trial motions is reported at 485 F.Supp. 566 (W.D.Okla. 1979).

[3] *Silkwood v. Kerr-McGee Corp.*, 667 F.2d 908 (10th Cir. 1981).

[4] *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 104 S.Ct. 615, 78 L.Ed.2d 443 (1984).

with instructions that Kerr-McGee be free to assert any claims they made before our court that had yet to be addressed. Kerr-McGee now argues that they are entitled to judgment on the punitive damages claim because: (1) there is no evidence that malicious or wanton conduct on their part resulted in the plutonium contamination of Ms. Silkwood's apartment; and (2) they substantially complied with the federal regulatory scheme governing their conduct.

Kerr-McGee further contends that if they are not entitled to judgment on the record, the case should be remanded for a new trial on the punitive damages claim for the following reasons: (1) the evidence and the instructions relating to the personal injury claim thoroughly and prejudicially tainted the trial proceedings because any award of punitive damages must be based solely on evidence supporting the claim for property damage; (2) the trial court's jury instructions were fatally defective because the jury was not properly instructed on the effect of compliance with federal regulations; (3) the punitive damages award is outrageously excessive, bearing no relationship to the nature and extent of the injury or to the cause thereof; and (4) the prejudicial publicity surrounding the trial, the misconduct of plaintiff's counsel, and the prejudicial rulings of the trial court combined to deny a fair trial to Kerr-McGee.

Karen Silkwood was a laboratory analyst at an Oklahoma Kerr-McGee plant that fabricated fuel pins, containing plutonium, that were used for reactor fuel.[5] Ms. Silkwood worked the afternoon of November 5, 1974. Over the course of that afternoon, she monitored herself for plutonium contamination five times. The first four times she detected no contamination. The fifth time, af-

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[5] What follows is a brief review of the facts set out in more detail in our first opinion, 667 F.2d 908 (10th Cir. 1981).

ter withdrawing her hands from one of the glove boxes [6] in which she had been polishing and cleaning plutonium, she found contamination. Further checks were made in the laboratory and other contaminations were found, particularly inside the gloves in the glove box in which Ms. Silkwood had been working. Ms. Silkwood was decontaminated, placed on a five-day voiding collection program, and furnished urine and fecal kits to take home for the purpose of obtaining samples that would be sent to the United States testing laboratory for analysis.

On the morning of the next day, November 6, 1974, Ms. Silkwood arrived at work and did some paperwork for one hour. Upon leaving, she tested herself and again found herself to be contaminated. She was decontaminated and, at her request, her locker and auto were tested and found to be free of contamination.

The next day, November 7, 1974, Ms. Silkwood went directly to the plant's health physics office upon reporting to work. She was again found to be contaminated. The parties stipulated that the urine samples brought to the plant had been spiked with plutonium; that is, they contained insoluble—not naturally excreted—plutonium. Ms. Silkwood's apartment was also found to have been contaminated. Ms. Silkwood's roommate, who had returned to the apartment from the plant sometime after 8:00 a.m. on November 7th, was contaminated as well. When she had left work, she had been found not to be contaminated. Ms. Silkwood's boyfriend, who spent the night of November 6th in her apartment and left at 7:00 a.m. on the 7th, was not contaminated.

Ms. Silkwood's possessions were destroyed and she was sent to the Los Alamos Scientific Laboratory in New

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[6] A glove box is a supposedly impervious box surrounding the plutonium processing equipment that has glove holes permitting the operator to work with the equipment or with plutonium from outside the box.

Mexico to undergo further tests concerning her contamination. On November 13th, after having reported back to work and being reassigned, she was killed in an automobile accident. A subsequent autopsy revealed that the amount of plutonium within her body at the time of her death was between 25 percent and 50 percent of the permissible lifetime body burden allowed by the Atomic Energy Commission [7] for plutonium workers.

We first address Kerr-McGee's contention that they are entitled to a judgment notwithstanding the verdict on plaintiff's punitive damages claim because there is no evidence that the contamination of Ms. Silkwood's apartment was caused by any malicious or wanton conduct on their part.

This circuit has previously held that the question of the sufficiency of the evidence needed to go to the jury in a diversity case is a matter of federal law. *Oldenburg v. Clark*, 489 F.2d 839, 841 (10th Cir.1974).

We have previously explicated the federal standard as follows:

> It is proper for a court to withdraw a case from the jury and direct a verdict only in limited circumstances. A directed verdict is proper only where the evidence and all the inferences to be drawn therefrom are so patent that minds of reasonable men could not differ as to the conclusions to be drawn therefrom.

Taylor v. National Trailer Convoy, Inc., 433 F.2d 569, 571-72 (10th Cir.1970).[8]

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[7] Now the Nuclear Regulatory Commission.

[8] There is conflict among the circuits on the question of whether it is proper to apply a state or federal test of sufficiency of the evidence to support a jury verdict in a case where federal jurisdiction is rested on diversity of citizenship. *Compare Kuziw v. Lake Engineering Co.*, 586 F.2d 33 (7th Cir. 1978) (state law applies in

The Oklahoma punitive damages statute, 23 O.S.1981, section 9, provides that:

> [i]n any action for the breach of an obligation not arising from contract, where the defendant has been guilty of oppression, fraud or malice, actual or presumed, the jury, in addition to the actual damages, may give damages for the sake of example, and by way of punishing the defendant.

The requisite malice may be inferred from gross negligence that indicates a conscious indifference to the consequences of one's acts, *Wootan v. Shaw*, 205 Okl. 283, 237 P.2d 442 (1951), or a reckless disregard for the safety of others. *Thiry v. Armstrong World Industries*, 661 P.2d 515, 517 (Okla. 1983).

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determining motions for directed verdicts and for judgments notwithstanding the verdict) with *John Hancock Mutual Life Ins. Co. v. Dutton*, 585 F.2d 1289 (5th Cir. 1978) (federal law standard is to be applied in assessing whether judgment notwithstanding the verdict should be granted).

The Oklahoma standard for assessing the sufficiency of the evidence in support of a jury verdict differs somewhat from the federal standard. The Oklahoma Supreme Court has held that:

> A motion for directed verdict . . . should not be sustained unless there is *an entire absence of proof* tending to show a right to recover, and in passing on the same the trial court must consider as true, all of the evidence favorable to the party against whom motion . . . is directed together with all inferences that reasonably may be drawn therefrom and *disregard all conflicting evidence favorable to the movant.*

Austin v. Wilkerson, Inc., 519 P.2d 899, 903 (Okla. 1974) (quoting *Central Mutual Ins. Co. v. Dickason*, 451 P.2d 1 (Okla. 1969)) (emphasis added). Even if Oklahoma state law on this question were to be applied in this case, however, our decision on this issue would be the same, because whatever the differences in nuance between the Oklahoma standard and the federal standard, it is clear that Kerr-McGee's motion for judgment notwithstanding the verdict on the ground of insufficient supportive evidence must fail under either.

In support of his punitive damages claim, plaintiff presented evidence relating to plant security, worker training, management, radiation detection, medical evaluation, and contamination incidents. Dr. Karl Morgan, who for 29 years directed the government's health physics program at Oak Ridge, Tennessee, described defendant's operations as one of the worst, from the standpoint of safety, that he had ever reviewed. He testified that he "could not imagine such a lackadaisical attitude could be developed in an organization in reference to the health and safety of the people," and concluded that defendants' practices reflected a "callous" and "wanton" disregard for the health and safety of employees.

In addition to this and other expert testimony, plaintiff introduced substantial testimony of individuals who worked at defendants' plant that related to defendants' disregard for employee safety and to their endangerment of the public.

Plaintiff offered considerable documentary and statistical evidence on this issue as well, the most notable of which was evidence indicating that during the period from 1972-1976 Kerr-McGee was unable to account for as much as 10.4 kilograms of plutonium.

Defendants, of course, presented substantial evidence in rebuttal of plaintiff's claim of gross negligence. We need not recite that evidence here, however. In determining whether a judgment notwithstanding the verdict should be entered, whether it be under the Oklahoma standard or the federal standard, our function as an appellate court is not to determine where the preponderance of the evidence lies. Rather, we are confined to the assessment of whether plaintiff has presented evidence sufficient that a reasonable person might conclude that gross negligence on the part of Kerr-McGee caused damage to Ms. Silkwood's property.

It is true, as defendants contend, that plaintiff offered no direct evidence that the general pattern of gross negligence it sought to establish by the above evidence was the specific *cause* of the escape of plutonium in this particular instance. However, a jury may permissibly infer from a pattern of negligence likely to cause a particular kind of injury that such negligence did indeed cause the injury. *See Averitt v. Southland Motor Inn of Oklahoma*, 720 F.2d 1178, 1181-82 (10th Cir.1983). Plaintiff presented sufficient evidence of gross negligence and of causation to preclude a judgment notwithstanding the verdict for Kerr-McGee on the ground of insufficiency of the evidence.

Kerr-McGee further argues for a judgment notwithstanding the verdict on the theory that is substantial compliance with the federal regulatory scheme governing its conduct precluded the award of punitive damages. Kerr-McGee's argument in this regard appears to be two-pronged, although it is not clearly explicated as such. First, Kerr-McGee contends that substantial compliance with the federal regulatory scheme precludes the award of punitive damages as a matter of federal preemption. Second, Kerr-McGee apparently argues that even if this is not the case, such compliance is a bar to punitives as a matter of Oklahoma state law.

In reversing our decision striking down the district court's punitive damages judgment, the Supreme Court held that the existence of a federal scheme regulating Kerr-McGee did not preempt the award of punitive damages under state tort law principles.

> No doubt there is tension between the conclusion that safety regulation is the exclusive concern of the federal law, and the conclusion that a state may nevertheless award damages based on its own law of liability. But as we understand what was done over the years in the legislation concerning nuclear

> energy, Congress intended to stand by both concepts and to tolerate whatever tension there was between them. We can do no less. It may be that the award of damages based on the state law of negligence or strict liability is regulatory in the sense that a nuclear plant will be threatened with damages liability if it does not conform to state standards, but that regulatory consequence was something Congress was quite willing to accept.

104 S.Ct. at 625-26.

Kerr-McGee argues, in effect, that while the existence of the federal regulatory scheme does not preclude the award of punitive damages, full compliance with that scheme does. While it is true that the Supreme Court did not explicitly find that, as a matter of federal preemption, punitive damages *may* be awarded even if Kerr-McGee substantially complied with the federal regulatory scheme, for us to find that they *may not* would be inconsistent with the principles implicit in the Court's opinion. The Court stated that:

> insofar as damages for radiation injuries are concerned, preemption should not be judged on the basis that the federal government has so completely occupied the field of safety that state remedies are foreclosed but on whether there is an irreconcilable conflict between the federal and state standards or whether the imposition of a state standard in a damage action would frustrate the objectives of the federal law. We perceive no such conflict in the circumstances of this case.

104 S.Ct. at 626.

The Supreme Court was well aware of the "circumstances of this case" regarding the substantial compliance issue. The Court noted that Kerr-McGee offered evidence that it had complied with most federal regulations.

104 S.Ct. at 619. The Court made specific note of a Nuclear Regulatory Commission official's testimony that there were no serious personnel exposures at the plant and that Kerr-McGee did not exceed the regulatory requirements with respect to exposure levels that would result in significant health hazards. *Id.* The Court also noted the Nuclear Regulatory Commission's report on the investigation of the incident involving Ms. Silkwood, in which the Commission determined that Kerr-McGee's only violation of federal regulations throughout the incident was its failure to maintain a record of the dates of two urine samples submitted by Ms. Silkwood. *Id.* Moreover, both of the dissents treated the majority opinion as holding that compliance with federal regulations does not preclude the award of punitive damages under state law principles of tort.[9] Kerr-McGee asks us, in effect, to read the Supreme Court's opinion as holding that the existence

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[9] Justice Blackmun stated that the

> punitive damages award . . . enables a State to enforce a standard that is more exacting than the federal standard. Were Kerr-McGee to continue adherence only to the federal standard, it would presumably be in continuous violation of state law—an indication that the jury award in this case was too small to serve its purpose. A licensee that continues to meet only the federal standard therefore presumably will receive increasingly large punitive sanctions in subsequent personal injury suits, until compliance with the state-imposed safety standard is obtained.

104 S.Ct. at 630. Justice Powell in his dissent noted that:

> The Court's decision, in effect, authorizes lay juries and judges in each of the states to make regulatory judgments as to whether a federally licensed nuclear facility is being operated safely. Such judgments then become the predicate to imposing heavy punitive damages. This authority is approved in this case even though the Nuclear Regulatory Commission (NRC)—the agency authorized by Congress to assure the safety of nuclear facilities—found no relevant violation of its stringent safety requirements worthy of punishment.

104 S.Ct. at 634.

of the federal regulatory scheme does not preclude the award of punitive damages—unless that scheme is substantially complied with. In other words, the state may impose, in addition to the federal standard, its own stricter safety standard on a nuclear plant—unless the plant *complies* with the less stringent federal standard. We do not believe that this non sequitur can be reasonably inferred from the Supreme Court's opinion.

While the Supreme Court has determined that Oklahoma is not precluded from allowing the award of punitive damages despite substantial compliance with a federal regulatory scheme, the question remains whether Oklahoma does indeed allow punitive damages in such circumstances. The district court opinion never clearly addresses this question. The court concluded, after reviewing relevant federal and state cases from jurisdictions other than Oklahoma, that under traditional principles of tort law, compliance with government safety regulations does not bar the award of punitive damages. The court did not, however explicitly inquire as to whether and how past decisions of the Oklahoma Supreme Court inform the issue. Inquiry into what the general law of tort is in this regard becomes relevant only after a determination that the question has not been decided, either directly or indirectly, by the Oklahoma Supreme Court.

Our own analysis of Oklahoma law convinces us, however, that the district court's conclusion was correct. Although the Oklahoma Supreme Court has yet to address the question of whether substantial compliance with a regulatory scheme bars the award of *punitive* damages, that court has embraced the general proposition that "mere compliance with statutory requirements does not relieve a party from responsibility for negligence as a matter of law." *Transport Indemnity Company v. Page*, 406 P.2d 980, 985 (Okla.1965); *see also Roadway Express, Inc. v. Baty*, 189 Okl. 180, 114 P.2d 935, 937

(1941) ("merely complying with statutory requirement relating to the position of his car on the paving did not, as a matter of law, save plaintiff from negligence"). We conclude that, if faced with the specific question, the Oklahoma Supreme Court would find, for the reasons enunciated by the district court, that under Oklahoma law substantial compliance with a regulatory scheme does not bar the award of punitive damages. We therefore reject Kerr-McGee's argument that substantial compliance with federal nuclear regulations rendered it immune to tort liability, including the possibility of punitive damages. We must nevertheless remand for a new trial for the reasons we will now set forth.

Kerr-McGee contends that a new trial should be ordered because evidence of Ms. Silkwood's personal injury was introduced in the trial below, and the Oklahoma Worker's Compensation Act, Okla.Stat.Ann. tit. 85 (West 1971 & Supp.1980), functions as a bar to any evidence relating to a covered personal injury. The Oklahoma Act provides that an employer shall pay compensation "for the disability or death of his employee resulting from an accidental personal injury sustained by the employee arising out of and in the course of his employment. . . ." *Id.* at 8, 11. Section 12 of the Act provides that the liability prescribed in section 11 "shall be exclusive and in place of all other liability of the employer . . ., at common law or otherwise, for such injury. . . ."

Defendants argue that the Act functions as a complete bar to evidence relating to a covered personal injury claim. Plaintiff contends that while a covered personal injury may not be compensated by an award for actual damages, it may nevertheless be the basis of an award of punitive damages. Oklahoma has yet to decide the question of whether the Act functions as a complete evidentiary bar, or whether it merely precludes the award of actual damages. Our review of the Act and of Oklahoma case law convinces us, however, that the Oklahoma

Supreme Court would reject both of the extreme positions advanced by the parties in favor of a more moderate view.

If, as defendants contend, the Oklahoma Act functions as a complete evidentiary bar, it would work a substantial hardship on potential plaintiffs whose rights were not intended to be affected by the Act. For example, an evidentiary bar would preclude a non-employee who was injured by a defendant employer's negligent act from introducing evidence of past similar injuries to employees, which would be otherwise admissible under Oklahoma law in order to demonstrate the knowledge and malice of the defendant for purposes of a punitive damages determination. *See Kurn v. Radencic*, 193 Okl. 126, 141 P.2d 580 (1943); *Averitt v. Southland Motor Inn of Oklahoma*, 720 F.2d 1178 (10th Cir.1983); *Edgar v. Fred Jones Ford*, 524 F.2d 162 (10th Cir.1975). Similarly, an evidentiary bar would work a substantial hardship on employees, like Ms. Silkwood, who press a property claim against an employer, even though such a claim is clearly not within the scope of the Act. There is no indication, either in the language of the Act or in the legislative history, that it was intended to limit the ability of plaintiffs to introduce evidence of covered injuries in order to prove elements of claims not covered by the Act through functioning as a complete evidentiary bar.

Evidence of an injury covered by the Act, however, may not be the basis for damages of any kind—actual or punitive. The Act is exclusive of "*all* other liability of the employer." (emphasis added). *See* 2A Larson, The Law of Workmen's Compensation, § 65.37 (1983) (reciting and documenting the well-recognized principle that punitive damages claims are barred by the exclusivity provisions, such as Oklahoma's, in workers' compensation acts). *Cf., Arrington v. Michigan-Wisconsin Pipe-Line Co.*, 632 F.2d 867 (10th Cir.1980) (Oklahoma's workers' compensation remedy is exclusive even where plaintiff alleges the "highest possible degree of negli-

gence"). Therefore, evidence of an injury covered by the Act that is admissible to prove an element of a claim for a non-covered injury must be properly restricted to that purpose by a limiting instruction. We are aware that in allowing evidence of a covered injury to prove an element of a non-covered claim we leave open the possibility that a covered injury may indirectly give rise to employer liability for that non-covered claim where none would have existed otherwise. However, our position is mandated by the fact that a complete evidentiary bar would expand the reach of the Oklahoma Act well beyond its framers' intent.

Plaintiff offers two cases in support of his position that even though an injury is non-compensable by actual damages because of workers' compensation exclusivity, that injury may nevertheless be the basis of a punitive damages award. In the first, *Martin v. Texaco, Inc.*, 726 F.2d 207 (5th Cir.1984), the widow of a Texas worker who was killed on the job brought a diversity suit seeking punitive damages in Texas federal court. The district court allowed the jury to consider evidence of injury and to determine how much actual damages it would award, even though such damages were, in fact, unrecoverable because they were subject to the exclusive remedy of the workers' compensation system. The jury returned a verdict for $450,000 in actual damages and $1 million in punitive damages, upon which the trial court entered judgment for plaintiff of $0 actuals and $1 million punitives. The Fifth Circuit affirmed. *Martin* is distinguishable from the case at hand in an obvious and significant way. The claim involved in that case—punitive damages for gross negligence causing death—was specifically preserved both by the Texas constitution [10] and by the Texas Workers' Compensation Act.[11] The Oklahoma Workers'

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[10] Const. art. XVI, S. 26.

[11] Tex.Rev.Civ.Stat.Ann. art. 8306, S. 5 (Vernon 1967).

Compensation Act not only contains no such specific preservation, but affirmatively precludes imposition of any other liability for a covered injury.

Another case plaintiff cites in support of the proposition that Ms. Silkwood's personal injury may be the basis of a punitive damages award is *Nales v. State Farm Mut. Ins. Co.*, 398 So.2d 455 (Fla.App.1981). That case involved the Florida no-fault automobile law, which places a statutory limitation on an injured party's common-law right to claim damages for pain, suffering, mental anguish and inconvenience.[12] To avoid this limitation a party must prove that he or she has suffered permanent injury. The plaintiff, who had been injured by a drunk driver, sought both actual and punitive damages. The trial court instructed the jury that the plaintiff had to prove permanent injuries to recover both those types of actual damages expressly limited by the statute and punitive damages. The jury returned a verdict for the defendant. The court of appeals reversed the trial court, holding that even though certain types of actual damages arising from a non-permanent injury were not compensable under the Florida no-fault insurance law, that law did not preclude a common-law claim for punitive damages for such an injury. This case, too, misses the mark. Unlike the Oklahoma Workers' Compensation Act, the Florida no-fault insurance law does not purport to be exclusive of all other liability.

Both *Martin* and *Nales* stand for the proposition that where a statute precludes actual damages for a particular kind of injury but does not explicity preclude other forms of liability, that injury may be the basis for a punitive damages award. The Oklahoma Workers' Compensation Act explicitly provides, however, that the liability it prescribes "shall be exclusive and in place of *all* other lia-

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[12] Fla.Stat. § 627.730 (1979).

bility of the employer. . . ." (emphasis added). Thus, *Martin* and *Nales* have no application to this case.

Having found that a personal injury covered by the Act may not be the basis of a punitive damages award, we must next address the question of whether Ms. Silkwood's personal injury was, in fact, the basis of any portion of the punitive damages awarded below. Plaintiff argues that the nature of punitive damages is such that the award would have been the same even if the trial below had been properly restricted to the property damage claim. This is so, plaintiff contends, because punitive damages analysis focuses not so much on the nature and extent of a plaintiff's injury as upon the endangerment to society created by the negligent conduct of the defendant and the punishment necessary to deter such conduct in the future. Plaintiff notes that our ruling on workers' compensation did not diminish Kerr-McGee's size and wealth, nor did it diminish the risk created by the escape of plutonium. In further support of his position, plaintiff offers Oklahoma cases holding that a punitive damages award need bear no relation to the actual damages awarded.

It is indeed true that under Oklahoma law the wealth of the defendant and the risk created by the defendant's negligent conduct are substantial factors to be considered in the calculation of punitive damages. *See Whiteley v. OKC Corp.*, 719 F.2d 1051 (10th Cir.1983); *Smith v. U.S. Gypsum Co.*, 612 P.2d 251 (Okla.1980); *Thiry v. Armstrong World Industries*, 661 P.2d 515 (Okla.1983). It is also true that under Oklahoma law punitive damages need bear no relation to the actual damages awarded. *Garland Coal and Mining Co. v. Few*, 267 F.2d 785, 791 (10th Cir.1959); *Cates v. Darland*, 537 P.2d 336, 340 (Okla.1975). Indeed, under Oklahoma law, punitive damages may be recovered even in conjunction with nominal actual damages. *Moyer v. Cordell*, 204 Okl. 255, 228 P.2d 645 (1951); *Beavers v. Lamplighters Realty, Inc.*, 556 P.2d 1328, 1333 (Okla.App.1976). In several instances

the Oklahoma Supreme Court has reduced an actual damages award but refused to reduce the attendant punitive damages award. *See, e.g., Hobbs v. Watkins*, 481 P.2d 746 (Okla.1971); *Moyer v. Cordell*, 204 Okl. 255, 228 P.2d 645 (1951). Thus, if Ms. Silkwood's personal injury were a permissible basis for a puntive damages claim, our striking down plaintiff's actual damages award would not necessarily require a reduction in the amount of the punitive damages award. The Oklahoma Workers' Compensation Act precludes *all* liability for a covered injury, however. Accordingly, our inquiry must be whether Ms. Silkwood's personal injury was indeed the basis for a portion of the punitive damages award. We must conclude that it was.

While under Oklahoma law punitive damages need bear no relation to the amount of actual damages awarded, they must bear some relation to the "cause and extent of one's injuries." *Hobbs v. Watkins*, 481 P.2d 746, 747-48 (Okla.1971). *See also Cates v. Darland*, 537 P.2d 336, 340 (Okla.1975); *Sopkin v. Premier Pontiac, Inc.*, 539 P.2d 1393, 1398 (Okla.App.1975); *Garland Coal and Mining Co. v. Few*, 267 F.2d 785, 791 (10th Cir.1959). The Oklahoma Supreme Court recently noted in *Timmons v. Royal Globe Insurance Co.*, 653 P.2d 907, 918 (Okla. 1982), that the harm caused to society by the particular conduct establishing liability for punitive damages, as well as the societal harm caused by that genre of conduct, were considerations material to a punitive damages award. The court also looked to the wealth of the defendant and to the deterrent effect of the award, but did not purport to overrule prior cases by enunciating an exclusive list of material factors. Thus, under Oklahoma law, although such factors as risk created and deterrent effect may be considered in determining a punitive damages award and the amount of punitive damages need bear no relation to the amount of actual damages awarded, the analysis is not open-ended. Rather, it must be disci-

plined by reference to injuries actually caused by the defendant, both to the plaintiff and to society generally.

On the issue of punitive damages the trial court instructed the jury as follows:

> Any exemplary damages that you award must bear some relationship to the injuries inflicted, but need not bear any relation to the amount of actual damages.

485 F.Supp. at 603. Thus, by instructing the jury to consider "the injuries inflicted" without restricting their consideration to the property damage claim, the district court explicitly invited the jury to increase the size of the punitive damages award on the basis of Ms. Silkwood's personal injury. As we have held, although evidence of an injury covered by the Oklahoma Workers' Compensation Act is admissible to prove an element of a claim not covered by the Act, it must be limited to that purpose. It may not be used by the jury as the basis for increased punitive damages in the jury's assessment of the appropriate relation between the injuries inflicted and the punitive damages award. Consequently, the trial court erred in using an instruction that invited the jury to consider a factor in setting the size of the punitive damages award that Oklahoma law forbids.

Any jury award of punitive damages involves a "discretionary moral judgment," *see Smith v. Wade*, 461 U.S. 30, 52, 103 S.Ct. 1625, 1638, 75 L.Ed.2d 632 (1983). Oklahoma law places very little limitation on the jury's discretion in making this moral judgment. Thus, no clear guidelines exist for us to determine what is an appropriate amount for a punitive damages award. In such a situation we are reluctant to hold errors that permitted the jury to consider improper elements in fashioning its award to be harmless. Because we cannot determine to what extent the jury's punitive damages analysis was

distorted by the consideration of an impermissibly large actual injury, a new trial is required.

In addition to limiting the use of Ms. Silkwood's personal injury so as not to increase the size of the punitive damages award, the district court on retrial must ensure that the entire focus is on the type of conduct by Kerr-McGee that could have caused Ms. Silkwood's property damage: conduct allowing plutonium to escape the Kerr-McGee plant. Only evidence that relates to the plant operations and practices relevant to that escape will be admissible. Evidence of Ms. Silkwood's personal exposure will be admissible only insofar as it bears on that issue. Thus, no doubt some of the evidence that the jury may have considered in making the punitive damages award in the earlier trial will not be admissible in the new trial. Further, the evidence of Ms. Silkwood's personal injury that is admissible for proving the property damage claim must be restricted so as not to be a factor in the determination of the required relation between injuries inflicted and the amount of punitive damages. Because a new trial is required to determine whether Kerr-McGee's conduct that caused plaintiff's property damage warrants imposition of punitive damages and, if so, the amount of those damages, we need not consider Kerr-McGee's other grounds for a new trial.

Finally, we address plaintiff's claim that he is entitled to a new trial on his personal injury claim. We, of course, previously reversed the district court's judgment for the plaintiff on this claim, holding that workers' compensation was the exclusive remedy for Ms. Silkwood's personal injuries. Plaintiff contends, however, that the trial court's rulings regarding the workers' compensation law framed the case in such a way that plaintiff's counsel "contented themselves" with offering intentional tort evidence solely to rebut Kerr-McGee's theory of self-contamination, and did not "marshal the evidence" or "frame arguments" in such a way as to persuade the jury that an intentional

tort had been committed. We find the argument that plaintiff's counsel were induced to complacency on this issue somewhat less than persuasive. Plaintiff had opportunity as well as incentive to marshal and persuasively present all the evidence available to prove that Kerr-McGee intentionally contaminated Ms. Silkwood. Demonstrating intent on the part of Kerr-McGee to contaminate Ms. Silkwood was of obvious significance to plaintiff's punitive damages claim.

Moreover, even if plaintiff's effort to prove intent was less fervent than it might have been if the trial court had properly ruled on the workers' compensation law, under the doctrine of "law of the case" plaintiff is not entitled to a new trial on this claim.[13] Under this doctrine plaintiff would be required to show that our previous decision was "clearly erroneous" or that it would result in a "manifest injustice." *Handi Inv. Co. v. Mobil Oil Co.*, 653 F.2d 391, 392 (9th Cir.1981); *White v. Murtha*, 377 F.2d 428, 431-32 (5th Cir.1967). In view of plaintiff's obvious incentive at the trial below to prove intentional contamination, we would be hard-pressed to hold that plaintiff has met this standard. Put simply, plaintiff has had his day in court on his compensatory damages claim. He is not entitled to another.

The punitive damages judgment is reversed, and the cause is remanded for a new trial on the punitive damages issue.

DOYLE, Circuit Judge, dissenting.

I respectfully dissent.

Notwithstanding that the plaintiff has prevailed in his several appearances against Kerr-McGee and Kerr-McGee

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[13] Defendants argue that our prior decision is res judicata on remand. *See* 1B Moore's Federal Practice ¶ 0.404 [4.3] (2d ed. 1982). In light of our disposition we need not reach this issue.

Nuclear Corporation, Judges McKay and Logan, who are part of a three-judge panel, continue the same arguments. This writer is and continues to be on the short side or end.

I submit that the points on which the majority have sought to gain a dominant position are surprisingly lacking in either logic or contribution to either social values or moral quality.

The first trial continued for eleven weeks. It received a most careful treatment. To try this case once again is atrocious.

PRELIMINARY STATEMENT

This case is before us on remand from the Supreme Court of the United States. Defendant Kerr-McGee Corporation, and its subsidiary, Kerr-McGee Nuclear Corporation, appeal from judgments against them that were entered in a suit filed by Bill M. Silkwood, as Administrator of the Estate of Karen Silkwood. The suit was a diversity action based on Oklahoma common-law tort principles. It was tried to a jury in the United States District Court for the Western District of Oklahoma in 1979. Plaintiff Silkwood, the father of Karen Silkwood, sought recovery for personal injuries and property damage suffered by Karen Silkwood resulting from plutonium contamination incidents which occurred on November 5, 6 and 7, 1974. The trial was successful. The jury awarded the plaintiff $500,000 actual damages for plaintiff's personal injury claim and $5,000 in actual damages for the property damage claim. It also awarded $10,000,000 in punitive damages. *Silkwood v. Kerr-McGee Corp.*, 485 F.Supp. 566 (W.D.Okla.1979).

In this court's first opinion in this case, 667 F.2d 908 (10th Cir.1981), the majority of the panel reversed the personal injury judgment and ruled that the Oklahoma Workmens' Compensation Act barred a common-law recovery for Ms. Silkwood's personal injuries. The property

damage award was affirmed. Finally, a majority of the panel reversed the punitive damage award, holding that the award of punitive damages under state law was preempted by federal regulation of the nuclear industry.

Plaintiff Silkwood appealed this court's reversal of the punitive damage award. The Supreme Court's conclusion was that a punitive damage award in this case was not preempted by federal regulation. *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 104 S.Ct. 615, 78 L.Ed.2d 443 (1984). It remanded the cause to this court with the ruling that punitive damages were not preempted and were subject to state laws, and with instructions that Kerr-McGee was free to assert any claims it had made before us that we did not address in our first opinion. 104 S.Ct. at 626-27.

Kerr-McGee now asserts that it is entitled to a judgment notwithstanding the verdict on the punitive damages claim. They persist in their contention that there was a dearth of evidence that the contamination of Ms. Silkwood's apartment resulted from malicious conduct on its part that would justify a punitive award. If they were not responsible, who was? It also requests judgment notwithstanding the verdict on the grounds that its "substantial compliance" with federal regulations bars a punitive damages award. In the alternative, Kerr-McGee advances four further arguments in its effort to obtain a new trial on the punitive damages issue. *First*, it argues that the jury's punitive award was "tainted" by the introduction of evidence concerning Silkwood's physical injuries at trial. *Second*, it asserts that the punitive award entered is disproportionate to the actual damages as a matter of law. *Third*, it suggests that the trial court's jury instructions on the effect of compliance with federal regulations were prejudicially defective. *Finally*, Kerr-McGee asserts that it was denied a fair trial because of extraneous anti-nuclear publicity at the time of the trial and because of the trial tactics of plaintiff's

counsel. It is important to remember that the Kerr-McGee employees were constantly looking over Silkwood's activity not only in the plant but also in her home. Both her apartment and her person were soaked with nuclear material at the time of the auto accident.

THE PERTINENT FACTS

The pertinent evidence surrounding Ms. Silkwood's contamination established that condition. Karen Silkwood was a laboratory analyst at Kerr-McGee's Cimmaron plant located near Crescent, Oklahoma. The plant fabricated fuel pins containing plutonium for use as reactor fuel. Silkwood was contaminated by plutonium on November 5, 6, and 7, 1974. The parties have stipulated that this very plutonium origin came from the Kerr-McGee plant.

Plutonium is an artificially produced radioactive chemical element which is the essence for the development of nuclear weapons and nuclear power. It emits alpha particles, beta particles, neutrons, gamma rays and x-rays. Thus there is acknowledgment that plutonium from Kerr-McGee is one of the most carcinogenic and dangerous substances known.

As a member of the Oil, Chemical and Atomic Workers Union (OCAW), Silkwood represented some of the workers in this Kerr-McGee plant. As an elected member of the union negotiating team, Silkwood was responsible for health and safety matters. In September 1974 she, together with her fellow committee members, met with OCAW leaders in Washington, D.C. There she presented charges to the Atomic Energy Commission (AEC) as to numerous health and safety violations by Kerr-McGee. The AEC requested documentation of the charges. Ms. Silkwood was assigned the job of collecting this documentation. She was engaged in collecting information and recording it in notebooks and on tapes from September 1974 and continuing until the time of her death.

Ms. Silkwood's first contamination occurred on November 5, 1974. She reported to work at the Cimmaron plant on November 5 at 1:20 p.m. At 2:45 p.m. and 3:15 p.m., before and after taking a break, Silkwood monitored herself with plutonium detecting devices provided by Kerr-McGee in accordance with AEC license requirements. No plutonium was detected on her person. At about 3:45 p.m. Silkwood began to work in two glove boxes containing plutonium. A glove box is a supposedly impervious box surrounding the plutonium processing equipment which has glove holes. This allows the operator to work on the equipment or with the plutonium from outside the box. Silkwood monitored herself before and after her break at 5:30 p.m. and at 5:45 p.m. and at those times detected no contamination. She continued to work in the glove boxes, but upon withdrawing her hands from one of the boxes at about 6:30 p.m., she became aware of high contamination. Further checks made in the laboratory revealed other contaminations. These took place inside the gloves in the glove box in which Silkwood had been polishing and cleaning plutonium.

A substantial amount of contamination was found on Silkwood's left hand, right wrist, upper arm, neck, face, hair, and her nostrils. Pursuant to regulations, Silkwood was immediately decontaminated and placed on a five-day voiding collection program. She was provided with urine and fecal kits to take home. These were for the purpose of obtaining samples to send to the United States testing laboratory for analysis. Later that day Silkwood returned to work, but not to the glove boxes. She monitored herself when she left work at about 1:10 a.m. and found no contamination. The glove box was later tested by the AEC investigators, and no leaks were found. Further, the investigators found no significant airborne contamination in the laboratory.

The next day, November 6, 1974, Silkwood arrived at work at 7:50 a.m., and did some paper work in the

lab until 8:50 a.m. She then left to attend a previously scheduled union meeting. At that time she tested herself and found contamination on her right forearm, face, and neck. Her hands were decontaminated. The other spots appeared to be fixed contamination, so she was allowed to attend the union meeting. She returned to the health office at 4:30 p.m. Slight contamination was found on her right forearm, neck and face, and in her nostrils. She was again decontaminated and, at her request, her locker and auto were tested and found to be free of contamination.

On November 7, 1974, when she reported to work Silkwood went directly to the plant's health physics office. She was found to be contaminated in her nostrils and on her hands, arms, chest, back, neck and right ear. Four urine and one fecal sample collected on November 5th, 6th and 7th were found to be contaminated, although the exterior of the kits showed no contamination. The parties stipulated that urine samples brought to the plant contained insoluble, not naturally excreted, plutonium. Silkwood's apartment was also found to have been contaminated, with the highest concentrations of plutonium found in the bathroom and on a package of bologna and cheese in the refrigerator.

Silkwood's roommate, Sherri Ellis, also a laboratory analyst at Kerr-McGee, was found not to be contaminated when she left work at 8:00 a.m. on November 7th after working a midnight shift. After returning to the apartment, Ellis used the bathroom and retired to her bedroom. Subsequent checks revealed contamination of Ellis' buttocks and hands. But Ellis' auto and the refrigerator where her lunch had been placed in the plant lunchroom were free of contamination.

Silkwood seemed to be continuously surrounded by plutonium during the period prior to the accident and death.

Silkwood's possessions were destroyed and Silkwood was sent to the Los Alamos Scientific Laboratory in New Mexico to have further tests concerning contamination. On November 13 she reported back to work. At that time she was reassigned. She participated in a union negotiating session that day, met with AEC inspectors concerning her contamination, and attended a union strategy session.

That night Silkwood was on her way to meet a *New York Times* reporter and an OCAW leader when she was killed in an automobile accident. The subsequent autopsy revealed that the amount of plutonium within Silkwood's body at the time of her death was between 25% and 50% of the permissible lifetime body burden allowed by the AEC for plutonium workers.

In this court's first opinion, it was concluded that Silkwood's apartment had become contaminated during the preparation of her urine sample on November 7, 1974. The exact way that the plutonium found its way into Ms. Silkwood's apartment has not been determined. Two things are clear: the plutonium did come from Kerr-McGee's plant, which has been stipulated by the parties; and, as the jury found, Karen Silkwood did not intentionally remove the plutonium from the plant.

KERR-McGEE'S DEMAND THAT THE PUNITIVE DAMAGES BE DENIED

Kerr-McGee makes two arguments for judgment notwithstanding the verdict. Kerr-McGee's contentions are that there was insufficient evidence presented at trial to permit a reasonable jury to conclude that its conduct warranted an award of punitive damages. We maintain that this evidence is ample. That was the source of all of this material and the origin goes back there regardless of the starting line.

Oklahoma's punitive damages statute, 23 O.S. 1981 § 9, permits punitive awards in any non-contractual action

whenever the defendant has been "guilty of oppression, fraud or malice, actual or presumed." Oklahoma case law permits malice to be presumed whenever the defendant's course of conduct can be said to show a reckless disregard for public safety. *Thiry v. Armstrong World Industries*, 661 P.2d 515, 518 (Okla.1983). In order to justify submission of the punitive damages issue to the jury, all that the plaintiff had to do was submit sufficient evidence to allow a reasonable person to conclude that Kerr-McGee's conduct displayed a reckless disregard for public safety. There is adequate evidence to establish this. *See Taylor v. National Trailer Convoy, Inc.*, 433 F.2d 569, 571-72 (10th Cir.1970). Upon reviewing the record it is apparent that the plaintiff's evidence was ample to satisfy this burden.

Plaintiff Silkwood presented substantial evidence at trial of Kerr-McGee's indifference to employee safety and to the safety of the public at large. One expert witness, Dr. Karl Morgan, served as Director of the government's Oak Ridge, Tennessee, Health Physics Program for 29 years. He testified that Kerr-McGee's Cimmaron operation was one of the worst, in terms of safety, that he had ever evaluated. He characterized the defendant's attitude toward safety as "lackadaisical," and concluded that defendant's conduct reflected a "callous" and "wanton" disregard for employees' safety. Plaintiff also presented substantial statistical evidence concerning Kerr-McGee's handling of plutonium. That evidence indicated that, among other problems, Kerr-McGee was unable to account for as much as 10.4 kilograms of plutonium between 1972 and 1976.

Plaintiff's evidence was more than sufficient to permit a reasonable person to find reckless disregard for public safety on Kerr-McGee's part. Moreover, the evidence of a pattern of reckless disregard for public safety was also sufficient to permit a reasonable person to infer that Kerr-McGee's course of conduct caused the damage to

Ms. Silkwood's property. *See Averitt v. Southland Motor Inn of Oklahoma,* 720 F.2d 1178, 1181-82 (10th Cir. 1983). Kerr-McGee's argument that there was insufficient evidence to allow the punitive damages issue to be submitted to the jury is properly denied.

Kerr-McGee's next argument is that its "substantial compliance" with federal regulations governing the nuclear industry precludes an award of punitive damages, and that therefore this court should enter judgment notwithstanding the verdict in its favor. This argument fails as is shown by the presence of the material itself.

THE RECENT OPINION OF THE SUPREME COURT

The Supreme Court's opinion in this case made it clear that, despite the existence of federal nuclear regulations, Oklahoma and other states were free to award damages under state tort law to parties injured by nuclear activities, 104 S.Ct. at 625. The necessary implications of this holding are that states are free to formulate their own standards of care that will govern conduct of nuclear activities within their borders, and that such standards of care may differ from federal regulatory standards. In asking us to hold that substantial compliance with federal regulatory standards precludes a punitive damage award based upon a differing state standard of care, Kerr-McGee is asking us to circumvent the Supreme Court's decision. This we cannot do. After all there is no magic associated with this compliance.

KERR-McGEE'S PLEA FOR A NEW TRIAL

We turn now to Kerr-McGee's arguments that it is entitled to a new trial on the punitive damages award. The Supreme Court's decision in this case has expressly allowed the upholding of the jury's punitive damages award as long as it is consistent with Oklahoma law and

is supported by the evidence adduced at trial. 104 S.Ct. at 626-27. To evaluate that award, we must consider the Oklahoma law and policies which govern such verdicts.

VALIDITY OF THE DAMAGES

Oklahoma law mandates that the threat from the defendant's course of conduct to society must be the focus of our inquiry. The Oklahoma Supreme Court has stated that:

> Unlike . . . compensatory damages, which are to benefit the *individual* plaintiff, punitive damages are imposed to benefit *society*. The plaintiff acts as a private attorney general to punish the culpable wrongdoer, thereby encouraging adherence to safety standards that benefit [society] generally. . . . [I]t is not the plaintiff's individual right, but society's as a whole, that is being defended.

Thiry v. Armstrong World Industries, 661 P.2d 515, 518 (Okla.1983) (emphasis in original). Although a plaintiff must allege and prove an actual injury that is judicially cognizable in order to recover punitive damages, *id.*, the Oklahoma court has indicated that:

> Such damages are not compensatory in nature. A party asking for exemplary damages has only an incidental personal interest. His recovery is whole and complete with actual damages. Exemplary damages, as a tool to deter the wrongdoer, is [sic] for society's benefit and not the litigating party's.

Slocum v. Phillips Petroleum Co., 678 P.2d 716, 719 (Okla.1983).

Because punitive damages are intended to punish a defendant for his past conduct, Oklahoma law requires that they are in proportion to the cuplability of that conduct, and to the defendant's wealth, rather than to any

actual damages awarded. As the Oklahoma court has said:

> The punishment function can only be achieved if the defendant is "stung" by the [punitive] award. The penalty should therefore not only match the misconduct but of necessity should relate to the wealth of the wrongdoer.

Thiry, 661 P.2d at 518. Although the extent of the plaintiff's injury must necessarily be considered in assessing punitive damages, Oklahoma has often permitted large punitive awards notwithstanding that relatively nominal actual damages were awarded. *See, e.g., Timmons v. Royal Globe Insurance Co.*, 653 P.2d 907 (Okla.1982) ($34,126 actuals; $1,500,000 punitives); *Sopkin v. Premier Pontiac, Inc.*, 539 P.2d 1393 (Okla.App.1975) ($400 actuals, $7,100 punitives); *Cates v. Darland*, 537 P.2d 336 (Okla.1975) ($200 actuals, $7,000 punitives). *See also Jones v. Lennington*, 629 P.2d 805, 807 (Okla.App. 1981) (dictum) ($1,000,000 punitive award with $1 nominal damages could be permissible under Oklahoma law). Such large awards have been permitted because the jury, having heard the evidence on the culpability of a defendant's conduct, is peculiarly suited to act as the conscience of the community; the jury determines the appropriate size of the award whereby it will adequately punish and deter the defendant. *E.g., Jones v. Lennington*, 629 P.2d at 807.

The authorities in Oklahoma permit punitive damage awards in strict liability cases. *Thiry v. Armstrong World Industries*, 661 P.2d 515 (Okla.1983). In a products liability setting, the Oklahoma court held that punitive damages are appropriate to be awarded in strict liability cases when:

> . . . the injury is attributable to conduct that reflects *reckless disregard* for the public safety. "Reckless disregard" . . . [means that the defendant] must

> either be aware of, or culpably indifferent to, an unnecessary risk of injury . . . [and] must also fail to determine the gravity of the danger or fail to reduce the risk to an acceptable minimal level. "Disregard for the public safety" reflects a basic disrespect for the interests of others.

Id. at 518 (emphasis in original) (footnotes omitted). We have no doubt that Oklahoma would extend this rule to strict liability cases based on deficient conduct of ultrahazardous activities. Thus, in the case at bar, a punitive award based on the strict liability property damage award is permissible and appropriate, provided that the evidence demonstrates the requisite degree of culpability on Kerr-McGee's part.

WHAT IMPACT, IF ANY, DOES THE OKLAHOMA WORKERS' COMPENSATION ACT HAVE ON THE PUNITIVE AWARD?

We next turn to consideration of what impact the Oklahoma Workers' Compensation Act, Tit. 85 O.S.1981, has on the punitive award. In a previous opinion in this same case, we held that 85 O.S.1981 § 12 made Workers' Compensation the exclusive remedy for job-related physical injuries, that Karen Silkwood's physical injuries were job-related, and that accordingly the Oklahoma Workers' Compensation Act precluded the trial court from awarding Silkwood's estate actual damages based on her physical injuries. 667 F.2d 908, 916-20 (10th Cir. 1981). We need consider only the discrete question of whether 85 O.S.1981 § 12 bars the consideration of evidence concerning a Workers' Compensation-covered injury in connection with a judicially cognizable claim for punitive damages.

Were Silkwood's estate seeking only actual damages for her physical injuries, we believe that the Supreme Court of Oklahoma would hold that 85 O.S.1981 § 12

effectively precluded any award of punitive damages. This is so because § 12 precludes a court from awarding actual damages to compensate Silkwood for her job-related physical injuries. A proper award of at least nominal actual damages is, as noted above, a necessary predicate for a punitive award under Oklahoma law, and because no actual damages could be awarded, no punitive award could be made. Under the circumstances of the case as it is, however, the Workers' Compensation Act has no bearing on the availability of punitive damages. There is an independent claim for property damages that occurred away from Kerr-McGee's plant. This award satisfies the actual damages requirement for a punitive award. Our position is that a punitive award could be made in this case.

Kerr-McGee's argument is that given the fact that a punitive award is proper, the jury's punitive award of $10 million in this case was "tainted" by the introduction of evidence concerning Silkwood's physical injuries. Its claim is that a new trial must therefore be ordered. On the contrary this outrageous and shocking occurrence should not be repeated. The punitive damages award made is, as shown above, not considered to be a compensatory award. Thus, the award, even if based in part on the fact that Silkwood suffered personal injuries as a result of Kerr-McGee's conduct, does not violate 85 O.S. 1981 § 12's mandate that Workers' Compensation be the sole remedy available to compensate workers for job-related physical injuries. Nor does the introduction of evidence concerning Silkwood's physical injuries, their likely effects, and the circumstances under which they occurred "taint" the punitive award. We have shown through the cases that punitive awards under Oklahoma law are based on the culpability of a defendant's course of conduct. The evidence concerning Silkwood's personal injuries that was admitted at trial is thus relevant to the jury's determination of Kerr-McGee's culpability.

The evidence had a strong bearing on Kerr-McGee's safety record, its attitude toward the dangers of plutonium, and the circumstances surrounding the contamination of Ms. Silkwood's apartment. Since the trial court's jury instructions directed the jury to focus primarily on the nature of Kerr-McGee's conduct, and not on the severity of Silkwood's physical injuries, in assessing punitive damages, *see* Instructions No. 19, 27, *reprinted in* 485 F.Supp. at 603, 606, we hold that evidence concerning Silkwood's physical injuries was properly admitted into evidence. It was properly considered by the jury in awarding punitive damages. Moreover, the jury is entitled to consider the same evidence in assessing punitive damages against Kerr-McGee, albeit under slightly different instructions, if we were to order a new trial on the issue. The trial was legally sufficient and a repetition would be wasteful.

WAS THE PUNITIVE AWARD JUSTIFIED?

We now consider whether the punitive award is justified by the evidence introduced at trial. In reviewing the award, we must view the evidence in the light most favorable to the prevailing party. *Timmons v. Royal Globe Insurance Co.*, 653 P.2d 907, 918 (Okla.1982). We may reverse the trial court's decision to uphold the award only if that decision is an abuse of discretion, *Barnes v. Smith*, 305 F.2d 226 (10th Cir.1962), or if the jury verdict itself is motivated by passion, prejudice or undue sympathy, *Timmons*, 653 P.2d at 919. We also note that under Oklahoma law, a remittitur as to actual damages such as we ordered in our first opinion does not require that a punitive damages award also be reduced. *Hobbs v. Watkins*, 481 P.2d 746, 754 (Okla.1971).

In our first opinion, we held that Oklahoma would find plutonium processing to be an ultrahazardous activity, and that Kerr-McGee should be held strictly liable for any damages caused by the escape of its plutonium. 667 F.2d 908, 921 (10th Cir.1981). Since strict liability ap-

plies, Oklahoma would hold Kerr-McGee to a standard of utmost due care and would require Kerr-McGee to take all possible precautions to safeguard against even the most minimal risk of harm from its operations.[1] *See* Foster & Keeton, *Liability Without Fault in Oklahoma*, 3 Okla.L.Rev. 172 (1951). Moreover, Oklahoma would find punitive damages to be appropriate if Kerr-McGee's handling of ultrahazardous plutonium reflected a reckless disregard for public safety. *See Thiry v. Armstrong World Industries*, 661 P.2d 515, 518 (Okla.1983).

The evidence concerning the contamination of Karen Silkwood's apartment was highly relevant and is entitled to careful review. If it was not given full attention an important aspect of the case would be excluded. There is ample evidence not only to permit the punitive damages issue to be submitted to the jury, but also to support the punitive damages award that the jury returned. Kerr-McGee conceded that the plutonium found in Ms. Silkwood's apartment came from its plant, and the jury found that Ms. Silkwood had not intentionally removed the plutonium from the plant. Thus, Kerr-McGee was strictly liable for the harm caused by its plutonium, and the question becomes whether Kerr-McGee's course of conduct reflected a reckless disregard for public safety.

THE EVIDENCE SUPPORTS THE CONCLUSION THAT KERR-McGEE FAILED TO PROVIDE SUPPORT CAPABLE OF PROTECTING AGAINST SILKWOOD'S CONTAMINATION

There is substantial evidence in the record to demonstrate that both before[2] and in connection with the Silk-

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[1] The Supreme Court's holding that state tort law is not preempted by federal nuclear regulation permits Oklahoma to impose strict liability and a standard of utmost due care upon Kerr-McGee. 104 S.Ct. at 624-25.

[2] Evidence of Kerr-McGee's handling of plutonium prior to the contamination incident was properly admitted at trial to show

wood contamination incident, Kerr-McGee failed to use the utmost care in its processing facility at Cimmaron, and that it fell short of even the standard that Oklahoma would impose under ordinary negligence principles. The record shows that Kerr-McGee did not take precautions to protect the general public from the escape of plutonium from its plant and that its conduct reflected reckless indifference for public safety.

The Cimmaron plant was not designed to satisfy the most simple principles of human factors engineering. The facility was cramped. The plant did not incorporate sufficient safety systems, such as "state of the art" alarm systems, leak detectors, air monitoring systems, and welded gaskets, into its design. The evidence showed that the plant's management was recklessly indifferent to the health and safety of its workers. Kerr-McGee hired unqualified health physics personnel. It knew of the life-threatening character of plutonium escape, but failed to warn employees of the importance of contamination control. Moreover, workers were never informed of the health hazards of plutonium contamination.

There is record evidence that Kerr-McGee continuously exposed also the general public to a risk of contamination through lax physical security at the plant. Kerr-McGee did not provide adequate health and safety training. This in all likelihood led to that many significant contamination events. Several of these critical events were emblematic of a conscious indifference to the welfare of the general public. For example, in April of 1972, three workers contaminated a local restaurant after leaving the plant tainted with plutonium. When Kerr-McGee

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Kerr-McGee's knowledge of the hazards of plutonium and its attitude toward those hazards. *Edgar v. Fred Jones Lincoln-Mercury of Oklahoma City, Inc.*, 524 F.2d 162 (10th Cir. 1975).

management learned of the incident, they did not contact either the restaurant or the Atomic Energy Commission. But, even after that incident, Kerr-McGee continued to employ lax contamination controls. Kerr-McGee was unable to account for 25 pounds of plutonium in less than a month from October 15 to November 7, 1974.

The contamination of Karen Silkwoood's apartment upon which liability in this case is based was within the radius of the abnormal risk to the general public. Kerr-McGee's lax security procedures and controls were significant factors in the escape of plutonium from its custody. All of Karen Silkwood's belongings, including items irreplaceable and of substantial sentimental character, were contaminated. These had negligible monetary value. Nevertheless they were contaminated and had to be destroyed. This destruction flowed from Kerr-McGee's failure to prevent the escape of plutonium from its plant. The record also discloses that there were numerous other incidents which reflected Kerr-McGee's lack of concern about the release of plutonium and the risks that release posed to the general public. Kerr-McGee simply pointed to the loose standards of the government.

The district court correctly concluded that "the amount of the punitive damages was particularly within the province of the jury to decide in light of the purpose of punitive damages, the character of defendant's conduct, the hazardous nature of plutonium, and defendant's knowledge and state of mind." 485 F.Supp. 566, 591 (D.Okla.1979). The record evidence permits one to conclude that the jury performed its function dispassionately and well. This result expressed the jury reaction and the reaction of the nation as a whole to the fatal consequences of the negligent treatment of this material. The punitive award was proportionate to the culpability of Kerr-McGee's dangerous conduct. It was not motivated by passion, prejudice, or undue sympathy. Accordingly, therefore, there is no basis for disturbing the award.

THE REMAINING ISSUES

There remain only three brief issues to be resolved. I am unable to consistently embrace the position of Kerr-McGee as to these.

First, Kerr-McGee's argument that the punitive award must be reversed because the punitive damages/actual damages ratio of 2000:1 is disproportionate as a matter of law. Kerr-McGee's argument must be rejected, for Oklahoma law explicitly rejects the use of a ratio approach in evaluating punitive awards. *Timmons v. Royal Globe Insurance Co.*, 653 P.2d 907, 918 (Okla.1982). So long as the award is reasonably related to the harm to society caused by the defendant's conduct, *id.*, and will not bankrupt the defendant, *Thiry v. Armstrong World Industries*, 661 P.2d 515, 518 (Okla.1983), an appellate court should defer to the jury's judgment on punitive damages, *Timmons*, 653 P.2d at 918. Accordingly, we should reject Kerr-McGee's ratio argument.

Kerr-McGee's *second* argument is that the trial court's instructions to the jury on the effect of compliance with federal regulations were fatally flawed. Once again, we should reject this argument. Oklahoma law does not make mere compliance (or "substantial compliance") with statutory or regulatory requirements conclusive proof of due care. *See Transport Indemnity Co. v. Page*, 406 P.2d 980 (Okla.1965); *Roadway Express, Inc. v. Baty*, 189 Okl. 180, 114 P.2d 935 (1941). The trial court correctly instructed the jury that the federal regulations, and the degree of Kerr-McGee's compliance with those regulations, were entitled to substantial weight in determining whether Kerr-McGee had exercised due care in its handling of plutonium. *See* Instructions No. 10, 11, 12 and 27, *reprinted in* 485 F.Supp. at 598-99, 606-07. The trial court also instructed the jury that those regulations, and Kerr-McGee's compliance, did not conclusively prove due care under all the circumstances. *See id.* These

instructions fully described Oklahoma law; they are fully consistent with the principle, embodied in the Supreme Court's opinion, that Oklahoma may impose a common-law standard of care higher than that imposed by federal regulations on nuclear activities. I submit that no problem arises in connection with the trial court's jury instructions on compliance with federal regulations. Kerr-McGee's position fails to justify such an attack.

Kerr-McGee's *third* argument is that it was denied a fair trial due to anti-nuclear publicity arising out of the Three Mile Island incident and the movie, "The China Syndrome," and due to the courtroom histrionics of plaintiff's trial counsel, G.L. Spence. This position is also ill fit for the occasion. The trial judge repeatedly admonished the jury to disregard both extraneous publicity and the trial histrionics of plaintiff's counsel. When Kerr-McGee raised these issues before the district court in its post-trial motions, that court rejected Kerr-McGee's arguments of unfairness. Since the trial judge was in the best position to judge the overall fairness of the trial, we may reverse his decision on this issue only if it was a gross abuse of his broad discretion. *Rodgers v. Hyatt*, 697 F.2d 899, 901 (10th Cir.1983). In light of the strong cautionary admonitions to the jury that the trial court gave throughout the trial, and in light of the presumption that must be accorded that the jury performed its function fairly, I certainly cannot say that the district court abused its discretion in holding that Kerr-McGee received a fair trial. The case was tried with utmost care and any new trial could not provide improvement.

Our brothers, Judges McKay and Logan, refuse to face the general nature of this case. They fail to recognize its total magnitude of the condition created by Kerr-McGee. There has not been a previous situation which brought into focus the tremendous power of the material. It is understandable that Kerr-McGee's reaction is one which clings to its effort to treat the condition as an ordinary

result and which also turns away from the reality of this tragedy. The truth though is that the treatment of Silkwood shook the entire nation. Her suffering and death will not be soon forgotten.

Kerr-McGee's arguments for reversal or a new trial do not justify either a reversal or a six-week retrial. The award of punitive damages is not at all excessive in the light of the needless and excessive injury.

The punitive damages are the sole reminders of her life and death. The evidence and the verdict serve to call attention to the danger from the misuse of the material and its tragic result. How can a new trial and a different verdict improve the present result? How can a different result serve to remind those who remain of the true symbol of the material and what it stands for?

With the foregoing in mind I respectfully submit that the prior judgment should be affirmed.

APPENDIX B

SUPREME COURT OF THE UNITED STATES

No. 81-2159

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Appellant

v.

KERR-MCGEE CORPORATION, ETC., *et al.*

On Appeal from the United States Court of Appeals for the Tenth Circuit

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[January 11, 1984]

JUSTICE WHITE delivered the opinion of the Court.

Last term, this Court examined the relationship between federal and state authority in the nuclear energy field and concluded that states are precluded from regulating the safety aspects of nuclear energy. *Pacific Gas & Electric Co.* v. *State Energy Resources Conservation & Development Comm'n*, —— U.S. ——, —— (1983). This case requires us to determine whether a state-authorized award of punitive damages arising out of the escape of plutonium from a federally-licensed nuclear facility is preempted

either because it falls within that forbidden field or because it conflicts with some other aspect of the Atomic Energy Act.

I

Karen Silkwood was a laboratory analyst for Kerr-McGee [1] at its Cimmaron plant near Crescent, Oklahoma. The plant fabricated plutonium fuel pins for use as reactor fuel in nuclear power plants. Accordingly, the plant was subject to licensing and regulation by the Nuclear Regulatory Commission (NRC) pursuant to the Atomic Energy Act, 42 U.S.C. §§ 2011-2284 (1976 ed. and Supp. V).[2]

During a three-day period of November 1974, Silkwood was contaminated by plutonium from the Cimmaron plant. On November 5, Silkwood was grinding and polishing plutonium samples, utilizing glove boxes designed for that purpose.[3] In accordance with established procedures, she checked her hands for contamination when she withdrew them from the glove box. When some contamination was detected, a more extensive check was performed. A monitoring device revealed contamination on Silkwood's

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[1] Silkwood was employed by Kerr-McGee Nuclear Corp., a subsidiary of Kerr-McGee Corp. The jury found that the former was the "mere instrumentality" of the latter. We therefore refer to both as Kerr-McGee.

[2] Under 42 U.S.C. § 2073, the Commission is authorized to issue licenses to those who handle special nuclear materials like the plutonium processed in Kerr-McGee's plant. Section 2201(b) empowers the Commission to set standards and issue instructions to govern the possession and use of such materials. On April 2, 1970, Kerr-McGee obtained a license to receive and possess special nuclear materials at its Cimmaron plant. It closed the plant in 1975.

[3] A glove box is a supposedly impervious box surrounding the plutonium processing equipment which has glove holes permitting the operator to work on the equipment or the plutonium from outside the box.

left hand, right wrist, upper arm, neck, hair, and nostrils. She was immediately decontaminated, and at the end of her shift, the monitors detected no contamination. However, she was given urine and fecal kits and was instructed to collect samples in order to check for plutonium discharge.

The next day, Silkwood arrived at the plant and began doing paperwork in the laboratory. Upon leaving the laboratory, Silkwood monitored herself and again discovered surface contamination. Once again, she was decontaminated.

On the third day, November 7, Silkwood was monitored upon her arrival at the plant. High levels of contamination were detected. Four urine samples and one fecal sample submitted that morning were also highly contaminated.[4] Suspecting that the contamination had spread to areas outside the plant, the company directed a decontamination squad to accompany Silkwood to her apartment. Silkwood's roommate, who was also an employee at the plant, was awakened and monitored. She was also contaminated, although to a lesser degree than Silkwood. The squad then monitored the apartment, finding contamination in several rooms, with especially high levels in the bathroom, the kitchen, and Silkwood's bedroom.

The contamination level in Silkwood's apartment was such that many of her personal belongings had to be destroyed. Silkwood herself was sent to the Los Alamos Scientific Laboratory to determine the extent of contamination in her vital body organs. She returned to work on November 13. That night, she was killed in an unrelated automobile accident. 667 F.2d 908, 912 (CA10 1981).

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[4] At trial, the parties stipulated that the urine samples had been spiked with insoluble plutonium, *i.e.*, plutonium which cannot be excreted from the body. However, there was no evidence as to who placed the plutonium in the vials.

Bill Silkwood, Karen's father, brought the present diversity action in his capacity as administrator of her estate. The action was based on common law tort principles under Oklahoma law and was designed to recover for the contamination injuries to Karen's person and property. Kerr-McGee stipulated that the plutonium which caused the contamination came from its plant, and the jury expressly rejected Kerr-McGee's allegation that Silkwood had intentionally removed the plutonium from the plant in an effort to embarrass the company. However, there were no other specific findings of fact with respect to the cause of the contamination.

During the course of the trial, evidence was presented which tended to show that Kerr-McGee did not always comply with NRC regulations. One Kerr-McGee witness conceded that the amount of plutonium which was unaccounted for during the period in question exceeded permissible limits.[5] 485 F. Supp. 566, 586 (W. D. Okla. 1979). An NRC official testified that he did not feel that Kerr-McGee was conforming its conduct to the "as low as reasonably achievable" standard.[6] *Ibid.* There was also some evidence that the level of plutonium in Silkwood's apartment may have exceeded that permitted in an unrestricted area such as a residence. *Ibid.*

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[5] After allowing for hold-up (plutonium which remains in the equipment after a very thorough cleanout), the inventory difference (opening less closing) for the 1972-1976 period was 4.4 kilograms. This represented .522% of the 842 kilograms received by Kerr-McGee during that period. The NRC permits an inventory difference of .500%.

[6] Federal regulations require that "persons engaged in activities under licenses issued by the Nuclear Regulatory Commission . . . make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas, as low as is reasonably achievable." 10 CFR 20.1(c) (1983). In 1974, the regulation required reasonable efforts to maintain exposures and releases "as far below the limits specified [in other portions of the regulations] as practicable." The difference in the terminology is not significant. 40 Fed. Reg. 33029 (1975).

However, there was also evidence that Kerr-McGee complied with most federal regulations. The NRC official testified that there were no serious personnel exposures at the plant and that Kerr-McGee did not exceed the regulatory requirements with respect to exposure levels that would result in significant health hazards. In addition, Kerr-McGee introduced the Commission's report on the investigation of the Silkwood incident in which the Commission determined that Kerr-McGee's only violation of regulations throughout the incident was its failure to maintain a record of the dates of two urine samples submitted by Silkwood.

The trial court determined that Kerr-McGee had not shown that the contamination occurred during the course of Silkwood's employment. Accordingly, the court precluded the jury from deciding whether the personal injury claim was covered by Oklahoma's Workers' Compensation Act, which provides the sole remedy for accidental personal injuries arising in the course of employment. Okla. Stat. tit. 85 §§ 11, 12 (1981). Instead, the court submitted the claims to the jury on alternative theories of strict liability and negligence.[7]

The court also instructed the jury with respect to punitive damages, explaining the standard by which Kerr-McGee's conduct was to be evaluated in determining whether such damages should be awarded:

> "[T]he jury may give damages for the sake of example and by way of punishment, if the jury finds the defendant or defendants have been guilty of oppression, fraud, or malice, actual or presumed. . . .

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[7] In an effort to avoid a new trial in the event that the Court of Appeals disagreed with its ruling on the applicability of strict liability principles, the court instructed the jury to answer a special interrogatory as to whether Kerr-McGee negligently allowed the plutonium to escape from its plant. The jury answered in the affirmative.

> "Exemplary damages are not limited to cases where there is direct evidence of fraud, malice or gross negligence. They may be allowed when there is evidence of such recklessness and wanton disregard of another's rights that malice and evil intent will be inferred. If a defendant is grossly and wantonly reckless in exposing others to dangers, the law holds him to have intended the natural consequences of his acts, and treats him as guilty of a willful wrong." 485 F. Supp. 566, 603 (W. D. Okla. 1979) (Appendix).

The jury returned a verdict in favor of Silkwood, finding actual damages of $505,000 ($500,000 for personal injuries and $5,000 for property damage) and punitive damages of $10,000,000. The trial court entered judgment against Kerr-McGee in that amount.

Kerr-McGee then moved for judgment n.o.v. or a new trial. In denying that motion, 485 F. Supp. 566 (W. D. Okla. 1979), the court rejected Kerr-McGee's contention that compliance with federal regulations precluded an award of punitive damages. The court noted that Kerr-McGee "had a duty under part 20 of Title 10 of the Code of Federal Regulations to maintain the release of radiation 'as low as reasonably achievable.' Compliance with this standard cannot be demonstrated merely through control of escaped plutonium within any absolute amount." *Id.*, at 585. Therefore, the court concluded, it is not "inconsistent [with any congressional design] to impose punitive damages for the escape of plutonium caused by grossly negligent, reckless and willful conduct." *Ibid.*

Kerr-McGee renewed its contentions with greater success before the Court of Appeals for the Tenth Circuit. That court, by decision of a split panel, affirmed in part and reversed in part. 667 F.2d 908 (CA10 1981). The court first held that recovery for Silkwood's personal injuries was controlled exclusively by Oklahoma's workers'

compensation law. It thus reversed the $500,000 judgment for those injuries. The court then affirmed the property damage portion of the award, holding that the workers' compensation law applied only to personal injuries and that Oklahoma law permitted an award under a theory of strict liability in the circumstances of this case. Finally, the court held that because of the federal statutes regulating the Kerr-McGee plant, "punitive damages may not be awarded in this case," *id.*, at 923.

In reaching its conclusion with respect to the punitive damages award, the Court of Appeals adopted a broad preemption analysis. It concluded that "any state action that competes substantially with the AEC (NRC) in its regulation of radiation hazards associated with plants handling nuclear material" was impermissible. *Ibid.* Because "[a] judicial award of exemplary damages under state law as punishment for bad practices or to deter future practices involving exposure to radiation is not less intrusive than direct legislative acts of the state," the court determined that such awards were preempted by federal law. *Ibid.*

Silkwood appealed, seeking review of the Court of Appeals' ruling with respect to the punitive damages award. We noted probable jurisdiction and postponed consideration of the jurisdictional issue until argument on the merits. —— U.S. —— (1983).

II

We first address the jurisdictional issue. This Court is empowered to review the decision of a federal court of appeals "by appeal [if] a State statute [is] held by [the] court of appeals to be invalid as repugnant to the Constitution . . . ." 28 U.S.C. § 1254(2). Silkwood argues that because the Court of Appeals invalidated the punitive damages award on preemption grounds and because the basis for that award was a state statute, Okla. Stat.

tit. 23 § 9 (1981),[8] the Court of Appeals necessarily held that the state statute was unconstitutional, at least as applied in this case. Accordingly, Silkwood contends, this case falls within the confines of § 1254(2). We disagree.

In keeping with the policy that statutes authorizing appeals are to be strictly construed, *Perry Education Ass'n* v. *Perry Local Educators' Ass'n*, —— U.S. ——, —— (1983); *Fornaris* v. *Ridge Tool Co.*, 400 U.S. 41, 42 n. 1 (1970), we have consistently distinguished between those cases in which a state statute is expressly struck down on constitutional grounds and those in which an exercise of authority under state law is invalidated without reference to the state statute. The former come within the scope of § 1254(2)'s jurisdictional grant. *Malone* v. *White Motor Corp.*, 435 U. S. 497, 499 (1978); *Dutton* v. *Evans*, 400 U. S. 74, 76 n. 6 (1970). The latter do not. *Perry Education Ass'n*, *supra*, at ——; *Hanson* v. *Denckla*, 357 U. S. 235, 244 (1958); *Wilson* v. *Cook*, 327 U. S. 474, 482 (1946).[9] See also *County of Arlington* v. *United States*, 669 F. 2d 925 (CA4 1981) *cert. denied*, —— U.S. —— (1983); *Minnesota* v. *Hoffman*, 543 F. 2d 1198 (CA8 1976), *cert. denied sub nom Minnesota* v. *Alexander*, 430 U. S. 977 (1977). The present case falls into the second category.

The Court of Appeals held that because of the preemptive effect of federal law, "punitive damages may not

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[8] The Oklahoma statute authorizes an award of punitive damages "[i]n any action for the breach of an obligation not arising from contract, where the defendant has been guilty of oppression, fraud, or malice, actual or presumed."

[9] *Wilson* and *Denckla* involve appeals from state court judgments under 20 U.S.C. § 1257 and its predecessor. However, such cases are relevant to the present issue because of "the history of . . . close relationship between" § 1254(2) and § 1257. *Calero-Toledo* v. *Pearson Yacht Leasing Co.*, 416 U.S. 663, 675-677 n. 11 (1974).

be awarded in this case." 667 F. 2d, at 923. It did not purport to rule on the constitutionality of the Oklahoma punitive damages statute. The court did not mention the statute, and the parties did not contest or defend the constitutionality of the statute in their appellate briefs. While the award itself was struck down, the statute authorizing such awards was left untouched. Cf. *Perry Education Ass'n*, *supra*, at ——. Therefore, the present appeal is not within our § 1254(2) appellate jurisdiction.[10]

Nevertheless, the decision below is reviewable by writ of certiorari. *Ibid.* The issue addressed by the court below is important; it affects both the states' traditional authority to provide tort remedies to its citizens and the federal government's express desire to maintain exclusive regulatory authority over the safety aspects of nuclear power. Accordingly, treating the jurisdictional statement as a petition for certiorari, as we are authorized to do, 28 U. S. C. § 2103, we grant the petition and reach the merits of the Court of Appeals' ruling.

III

As we recently observed in *Pacific Gas & Electric Co.* v. *State Energy Resources Conservation & Development Comm'n*, —— U.S. —— (1983), state law can be preempted in either of two general ways. If Congress evidences an intent to occupy a given field, any state law falling within that field is preempted. *Id.*, at ——; *Fidelity Federal Savings & Loan Ass'n* v. *de la Cuesta*, 458 U. S. 141, 153 (1982); *Rice* v. *Santa Fe Elevator Corp.*,

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[10] Silkwood's reliance on *California* v. *Grace Brethren Church*, 457 U.S. 393 (1982) is misplaced. *Grace Brethren* involved a direct appeal under 28 U.S.C. § 1252, a statute which we have co. strued more broadly because of Congress' clear intent to create an "exception to the policy of minimizing the mandatory docket of this Court." *Id.*, at 405. See also *McLucas* v. *DeChamplain*, 421 U.S. 21, 31 (1975).

331 U. S. 218, 230 (1947). If Congress has not entirely displaced state regulation over the matter in question, state law is still preempted to the extent it actually conflicts with federal law, that is, when it is impossible to comply with both state and federal law, *Florida Lime & Avocado Growers, Inc.* v. *Paul*, 373 U. S. 132, 142-143 (1963), or where the state law stands as an obstacle to the accomplishment of the full purposes and objectives of Congress, *Hines* v. *Davidowitz*, 312 U. S. 52, 67 (1941). *Pacific Gas & Electric*, *supra*, at ——. Kerr-McGee contends that the award in this case is invalid under either analysis. We consider each of these contentions in turn.

A

In *Pacific Gas & Electric*, an examination of the statutory scheme and legislative history of the Atomic Energy Act convinced us that "Congress . . . intended that the federal government regulate the radiological safety aspects involved . . . in the construction and operation of a nuclear plant." —— U. S., at ——. Thus, we concluded that "the federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the states." *Id.*, at ——.

Kerr-McGee argues that our ruling in *Pacific Gas & Electric* is dispositive of the issue in this case. Noting that "regulation can be as effectively asserted through an award of damages as through some form of preventive relief," *San Diego Building Trade Council* v. *Garmon*, 359 U. S. 236, 247 (1959), Kerr-McGee submits that because the state-authorized award of punitive damages in this case punishes and deters conduct related to radiation hazards, it falls within the prohibited field. However, a review of the same legislative history which prompted our holding in *Pacific Gas & Electric*, coupled with an examination of Congress' actions with respect to other portions of the Atomic Energy Act, convinces us

that the preempted field does not extend as far as Kerr-McGee would have it.

As we recounted in *Pacific Gas & Electric*, "[u]ntil 1954 . . . the use, control and ownership of nuclear technology remained a federal monopoly." —— U. S., at ——. In that year, Congress enacted legislation which provided for private involvement in the development of atomic energy. The Atomic Energy Act of 1954, Act of Aug. 30, 1954, ch. 1073, 68 Stat. 919, as amended, 42 U. S. C. §§ 2011-2284 (1976 ed. and Supp. V). However, the federal government retained extensive control over the manner in which this development occurred. In particular, the Atomic Energy Commission (the predecessor of the NRC) was given "exclusive jurisdiction to license the transfer, delivery, receipt, acquisition, possession and use of nuclear materials." *Pacific Gas & Electric*, *supra*, at ——. See 42 U. S. C. §§ 2014, (e), (z), (aa), 2061-2064, 2071-2078, 2091-2099, 2111-2114 (1976 and Supp. V).

In 1959 Congress amended the Atomic Energy Act in order to "clarify the respective responsibilities of the States and the Commission with respect to the regulation of byproduct, source, and special nuclear materials." 42 U. S. C. § 2021(a)(1). See S. Rep. No. 870, 86th Cong. 1st Sess. 8-12 (1959). The Commission was authorized to turn some of its regulatory authority over to any state which would adopt a suitable regulatory program. However, the Commission was to retain exclusive regulatory authority over "the disposal of such . . . byproduct, source, or special nuclear material as the Commission determines . . . should, because of the hazards or potential hazards thereof, not be disposed of without a license from the Commission." 42 U. S. C. § 2021(c)(4). The states were therefore still precluded from regulating the safety aspects of these hazardous materials.[11]

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[11] At the time this suit was filed, Oklahoma had not entered into an agreement with the Commission under § 2021. Even if it had,

Congress' decision to prohibit the states from regulating the safety aspects of nuclear development was premised on its belief that the Commission was more qualified to determine what type of safety standards should be enacted in this complex area. As Congress was informed by the AEC, the 1959 legislation provided for continued federal control over the more hazardous materials because "the technical safety considerations are of such complexity that it is not likely that any State would be prepared to deal with them during the foreseeable future." H. R. Rep. No. 1125, 86th Cong., 1st Sess. 3 (1959). If there were nothing more, this concern over the states' inability to formulate effective standards and the foreclosure of the states from conditioning the operation of nuclear plants on compliance with state-imposed safety standards arguably would disallow resort to state-law remedies by those suffering injuries from radiation in a nuclear plant. There is, however, ample evidence that Congress had no intention of forbidding the states from providing such remedies.

Indeed, there is no indication that Congress even seriously considered precluding the use of such remedies either when it enacted the Atomic Energy Act in 1954 and or when it amended it in 1959. This silence takes on added significance in light of Congress' failure to provide any federal remedy for persons injured by such conduct. It is difficult to believe that Congress would, without comment, remove all means of judicial recourse for those injured by illegal conduct. See *United Construction Workers* v. *Laburnum Corp.*, 347 U. S. 656, 663-664 (1954).

More importantly, the only congressional discussion concerning the relationship between the Atomic Energy

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Kerr-McGee would have still been subject to exclusive NRC safety regulation because it was licensed to possess special nuclear material in a quantity sufficient to form a critical mass. See 42 U.S.C. § 2021(b)(4) (1976 ed., Supp. V).

Act and state tort remedies indicates that Congress assumed that such remedies would be available. After the 1954 law was enacted, private companies contemplating entry into the nuclear industry expressed concern over potentially bankrupting state-law suits arising out of a nuclear incident. As a result, in 1957 Congress passed the Price-Anderson Act, an amendment to the Atomic Energy Act. Pub. L. 85-256, 71 Stat. 576 (1957). That Act established an indemnification scheme under which operators of licensed nuclear facilities could be required to obtain up to $60 million in private financial protection against such suits. The government would then provide indemnification for the next $500 million of liability, and the resulting $560 million would be the limit of liability for any one nuclear incident.

Although the Price-Anderson Act does not apply to the present situation,[12] the discussion preceeding its enactment and subsequent amendment[13] indicates that Congress assumed that persons injured by nuclear accidents were free to utilize existing state tort law remedies. The Joint Committee Report on the original version of the Price-Anderson Act explained the relationship between the Act and existing state tort law as follows:

> "Since the rights of third parties who are injured are established by State law, there is no interfer-

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[12] Under the Act, the NRC is given discretion whether to require plants licensed under § 2073 to maintain financial protection. 42 U.S.C. § 2210(a). Government indemnification is available only to those required to maintain financial protection, *id.*, § 2210(c), and the liability limitation applies only to those who are indemnified. *Id.*, § 2210(e). The NRC did not require plutonium processing plants to maintain financial protection until 1977, 42 Fed. Reg. 46 (1977).

[13] The 1957 version of the Price-Anderson Act was designed to expire in 1967. It was extended in 1965, Pub. L. No. 89-210, 79 Stat. 855, and again in 1975, Pub. L. No. 94-197, 89 Stat. 1111. In addition, several substantive changes were made through the years, most notably in 1966. Pub. L. No. 89-645, 80 Stat. 691.

> ence with the State law until there is a likelihood that the damages exceed the amount of financial responsibility required together with the amount of the indemnity. At that point the Federal interference is limited to the prohibition of making payments through the state courts and to prorating the proceeds available." S. Rep. No. 296, 85th Cong., 1st Sess. 9 (1957).

See also H. Rep. 435, 85th Cong., 1st Sess. 9 (1957); S. Rep. No. 1605, 89th Cong., 2d Sess. 5 (1966).

Congress clearly began working on the Price-Anderson legislation with the assumption that in the absence of some subsequent legislative action, state tort law would apply.[14] This was true even though Congress was fully aware of the Commission's exclusive regulatory authority over safety matters. As the Joint Committee explained in 1965:

> "The Price-Anderson Act also contained provisions to improve the AEC's procedures for regulating reactor licensees . . . . This manifested the continuing concern of the Joint Committee and Congress with the necessity for assuring the effectiveness of the national regulatory program for protecting the health and safety of employees and the public against atomic energy hazards. The inclusion of these provisions . . . also reflected the intimate relationship which existed between Congress' concern for prevention of reactor accidents and the indemnity provisions of the Price-Anderson legisla-

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[14] In sustaining the Price-Anderson Act against a constitutional challenge, we echoed that assumption, noting that before the Act was enacted, the only right possessed by those injured in a nuclear incident "was to utilize their existing common-law and state-law remedies to vindicate any particular harm visited on them from whatever source." *Duke Power Co.* v. *Carolina Environmental Study Group*, 438 U.S. 59, 88, 89 n. 32 (1978).

tion." S. Rep. No. 649, 89th Cong., 1st Sess. 4-5 (1965).

When it enacted the Price-Anderson Act, Congress was well aware of the need for effective national safety regulation. In fact, it intended to encourage such regulation. But, at the same time, "the right of the State courts to establish the liability of the persons involved in the normal way [was] maintained." S. Rep. No. 296, *supra*, at 22.

The belief that the NRC's exclusive authority to set safety standards did not foreclose the use of state tort remedies was reaffirmed when the Price-Anderson Act was amended in 1966. The 1966 amendment was designed to respond to concerns about the adequacy of state law remedies. See, *e.g.*, S. Rep. No. 649, *supra*, at 13. It provided that in the event of an "extraordinary nuclear occurrence",[15] licensees could be required to waive any issue of fault, any charitable or governmental immunity defense, and any statute of limitations defense of less than 10 years. 42 U.S.C. § 2210(n)(1). Again, however, the importance of the legislation for present purposes is not so much in its substance, as in the assumptions on which it was based.

Describing the effect of the 1966 amendment, the Joint Committee stated:

> "By requiring potential defendants to agree to waive defenses the defendants' rights are restricted;

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[15] An "extraordinary nuclear occurence" is "any event causing a discharge or dispersal of source, special nuclear, or byproduct material from its intended place of confinement in amounts offsite, or causing radiation levels offsite, which the Commission determines to be substantial, and which the Commission determines has resulted or will probably result in substantial damages to persons offsite or property offsite." 42 U.S.C. § 2014(j). The Commission's criteria for defining an extraordinary nuclear occurrence are located at 10 CFR §§ 140.81-140.85 (1983).

> concomitantly, to this extent, the rights of plaintiffs are enlarged. Just as the rights of persons who are injured are established by State law, the rights of defendants against whom liability is asserted are fixed by State law. What this subsection does is to authorize the [NRC] to require that defendants covered by financial protection and indemnity give up some of the rights they might otherwise assert." S. Rep. 1605, 89th Cong., 2d Sess. 25 (1966).

Similarly, when the Committee outlined the rights of those injured in nuclear incidents which were not extraordinary nuclear occurrences, its reference point was again state law. "Absent . . . a determination [that the incident is an "extraordinary nuclear occurrence"], a claimant would have exactly the same rights that he has today under existing law—including, perhaps, benefit of a rule of strict liability if applicable State law so provides." *Id.*, at 11. Indeed, the entire discussion surrounding the 1966 amendment was premised on the assumption that state remedies were available notwithstanding the NRC's exclusive regulatory authority. For example, the Committee rejected a suggestion that it adopt a federal tort to replace existing state remedies, noting that such displacement of state remedies would engender great opposition. Hearings before the Joint Committee On Atomic Energy on Proposed Amendments to Price-Anderson Act Relating to Waivers of Defense, 89th Cong. 2d Sess. 31, 75 (1966); S. Rep. No. 1605, *supra*, at 6-9. If other provisions of the Atomic Energy Act already precluded the states from providing remedies to its citizens, there would have been no need for such concerns. Other comments made throughout the discussion were similarly based on the assumption that state remedies were available.[16]

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[16] Atomic Energy Commission General Counsel Hennessey testified that

"[i]t would appear eminently reasonable to avoid disturbing ordinary tort law remedies with respect to damage claims where the

Kerr-McGee focuses on the differences between compensatory and punitive damages awards and asserts that, at most, Congress intended to allow the former. This argument, however, is misdirected because our inquiry is not whether Congress expressly allowed punitive damages awards. Punitive damages have long been a part of traditional state tort law. As we noted above, Congress assumed that traditional principles of state tort law would apply with full force unless they were expressly supplanted. Thus, it is Kerr-McGee's burden to show that Congress intended to preclude such awards. See *IBEW* v. *Foust*, 442 U.S. 42, 53 (1979) (BLACKMUN, J., concurring). Yet, the company is unable to point to anything in the legislative history or in the regulations that indicates that punitive damages were not to be allowed. To the contrary, the regulations issued implementing the insurance provisions of the Price-Anderson Act themselves contemplate that punitive damages might be awarded under state law.[17]

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circumstances are not substantially different from those encountered in many activities of life which cause damage to persons and property." Hearings before the Joint Committee On Atomic Energy on Proposed Amendments to Price-Anderson Act Relating to Waivers of Defense, 89th Cong. 2d Sess. 35 (1966). See also *id.*, at 41 ("the amendments would not actually change the structure of the tort laws of the various states. The legal principles of state law would remain unchanged, but certain of the issues and defenses . . . would be affected").

[17] Following the 1966 amendment, the Commission published a form for nuclear energy liability policies and indemnity agreements. After reciting the waivers being made by the licensee in the event of an extraordinary nuclear occurrence, the form contains the following provision: "The waivers set forth above . . . do not apply to . . . . Any claim for punitive or exemplary damages . . . ." 10 CFR § 140.91, Appendix A, para. 2(c) at 801 (1983).

Had the Commission thought that punitive damages awards were precluded by earlier legislation, as Kerr-McGee suggests, there would have been no need to state that the waivers didn't apply to

In sum, it is clear that in enacting and amending the Price-Anderson Act, Congress assumed that state-law remedies, in whatever form they might take, were available to those injured by nuclear incidents. This was so even though it was well aware of the NRC's exclusive authority to regulate safety matters. No doubt there is tension between the conclusion that safety regulation is the exclusive concern of the federal law and the conclusion that a state may nevertheless award damages based on its own law of liability. But as we understand what was done over the years in the legislation concerning nuclear energy, Congress intended to stand by both concepts and to tolerate whatever tension there was between them. We can do no less. It may be that the award of damages based on the state law of negligence or strict liability is regulatory in the sense that a nuclear plant will be threatened with damages liability if it does not conform to state standards, but that regulatory consequence was something that Congress was quite willing to accept.

We do not suggest that there could never be an instance in which the federal law would preempt the recovery of damages based on state law. But insofar as damages for radiation injuries are concerned, preemption should not be judged on the basis that the federal government has so completely occupied the field of safety that state remedies are foreclosed but on whether there is an irreconcilable conflict between the federal and state standards or whether the imposition of a state standard in a damages action would frustrate the objectives of the federal law. We perceive no such conflict or frustration in the circumstances of this case.

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such awards. Since the waivers don't apply at all to the present situation, the clear implication is that punitive damages are available, if state law so provides.

B

The United States, as amicus curiae, contends that the award of punitive damages in this case is preempted because it conflicts with the federal remedial scheme, noting that the NRC is authorized to impose civil penalties on licensees when federal standards have been violated. 42 U.S.C. § 2282 (1976 ed. and Supp. V). However, the award of punitive damages in the present case does not conflict with that scheme. Paying both federal fines and state-imposed punitive damages for the same incident would not appear to be physically impossible. Nor does exposure to punitive damages frustrate any purpose of the federal remedial scheme.

Kerr-McGee contends that the award is preempted because it frustrates Congress' express desire "to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes." 42 U.S.C. § 2013(d). In *Pacific Gas & Electric*, we observed that "[t]here is little doubt that a primary purpose of the Atomic Energy Act was, and continues to be, the promotion of nuclear power." —— U.S., at ——. However, we also observed that "the promotion of nuclear power is not to be accomplished 'at all costs' ". *Id.*, at ——. Indeed, the provision cited by Kerr-McGee goes on to state that atomic energy should be developed and utilized only to the extent it is consistent "with the health and safety of the public." 42 U.S.C. § 2013(d). Congress therefore disclaimed any interest in promoting the development and utilization of atomic energy by means that fail to provide adequate remedies for those who are injured by exposure to hazardous nuclear materials. Thus, the award of punitive damages in this case does not hinder the accomplishment of the purpose stated in § 2013(d).

We also reject Kerr-McGee's submission that the punitive damages award in this case conflicts with Congress' express intent to preclude dual regulation of radiation

hazards. See S. Rep. No. 870, 86th Cong. 1st Sess. 8 (1959). As we explained in part A, Congress did not believe that it was inconsistent to vest the NRC with exclusive regulatory authority over the safety aspects of nuclear development while at the same time allowing plaintiffs like Silkwood to recover for injuries caused by nuclear hazards. We are not authorized to second-guess that conclusion.[18]

IV

We conclude that the award of punitive damages in this case is not preempted by federal law. On remand Kerr-McGee is free to reassert any claims it made before the Court of Appeals which were not addressed by that court or by this opinion, including its contention that the jury's findings with respect to punitive damages were not supported by sufficient evidence and its argument that the amount of the punitive damages award was excessive. The judgment of the Court of Appeals with respect to punitive damages is therefore reversed, and the case is remanded to the Court of Appeals for proceedings consistent with this opinion.

It is so ordered.

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[18] The government cites no evidence to support its claim that the present award conflicts with the NRC's desire to avoid penalties which put "a licensee out of business . . . or adversely affect[] a licensee's ability to safely conduct licensed activities." 47 Fed. Reg. 9991 (1982). Thus, we need not decide whether an award could be so large as to conflict with that policy. Of course, Kerr-McGee is free to challenge the propriety of the amount of the award on remand. See text *infra*, at 19.

SUPREME COURT OF THE UNITED STATES

No. 81-2159

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Appellant

v.

KERR-McGEE CORPORATION, ETC., *et al.*

On Appeal from the United States Court of Appeals for the Tenth Circuit

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[January 11, 1984]

JUSTICE BLACKMUN, with whom JUSTICE MARSHALL joins, dissenting.

I join JUSTICE POWELL's opinion in dissent and add comments of my own that, I believe, demonstrate (a) the incompatibility between the Court's opinion last Term in *Pacific Gas & Electric Co.* v. *State Energy Resources Cons. and Dev. Comm'n*, —— U.S. —— (1983), and its opinion in the present case, and (b) the fact that the Court is by no means compelled to reach the result it espouses today.

JUSTICE POWELL's dissent well explains the fundamental incongruity of the Court's result. The Court acknowl-

edges that Congress pre-empted state regulation of safety aspects of nuclear operations largely out of concern that States were without the technological expertise necessary to regulate them. *Ante*, at 11. Yet the Court concludes that Congress intended to allow a jury to impose substantial penalties upon a nuclear licensee for failure to follow what the jury regards as adequate safety procedures. The Court recognizes the paradox of its disposition, but blames the irrationality on Congress. Then, with humility, the Court explains that it is duty-bound to follow the dictates of Congress. But such institutional modesty cannot transfer the blame for the tension that today's decision injects into the regulation of nuclear power. The Court, in my view, tortures its earlier decisions and, more importantly, wreaks havoc with the regulatory structure that Congress carefully created.

I

The Court recognizes that the analytic framework for this case was established just a year ago in *Pacific Gas*. The precise issue in that case was whether the 1954 Atomic Energy Act, 68 Stat. 921, as amended, 42 U.S.C. § 2011 *et seq.* (1976 ed. and Supp. V), pre-empted California's authority to condition the construction of a nuclear facility in California on the State's finding that adequate means of disposal were available for the plant's nuclear wastes. Two aspects of that decision control the proper disposition of the case today.

First, the Court concluded that federal pre-emption of nuclear safety regulation was full and complete:

> "State safety regulation is not pre-empted only when it conflicts with federal law. Rather, the Federal Government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the States. When the Federal Government completely occupies a given field or an identifiable

portion of it, as it has done here, the test of pre-emption is whether the matter on which the State asserts the right to act is in any way regulated by the Federal Act,'" —— U.S., at —— (footnote omitted) (slip op. 19-20).

The second important aspect of *Pacific Gas* was its analysis of the California statute. Despite the broad federal preemption of nuclear safety concerns, the Court *upheld* the state statute. The Court recognized that the statute clearly had an effect on the safety of nuclear plant operations, *id.*, at —— (slip op. 3-4), but it upheld the statute because its *purpose* was economic. The Court concluded that the State had adopted the regulation to prevent investments in power plants that were likely to become white elephants due to inadequate nuclear waste storage facilities. *Ibid.* Because Congress had not meant the Atomic Energy Act to deprive States of the right to make economic decisions concerning nuclear power, the Court concluded that the regulation was not pre-empted. Thus, the fundamental teaching of *Pacific Gas* is that state regulation of nuclear power *is* pre-empted to the extent that its purpose is to regulate safety.

The principles set forth in *Pacific Gas* compel the conclusion that the punitive damages awarded in this case, and now upheld, are pre-empted. The prospect of paying a large fine—in this case a potential $10 million—for failure to operate a nuclear facility in a particular manner has an obvious effect on the safety precautions that nuclear licensees will follow. The Court does not dispute, moreover, that punitive damages are expressly designed for this purpose. Punitive damages are "private fines levied by civil juries." *Gertz* v. *Robert Welch, Inc.*, 418 U.S. 323, 350 (1974). See *Smith* v. *Wade*, —— U.S. ——, —— (1983) ("[D]eterrence of future egregious conduct is a primary purpose . . . of punitive damages")

(slip op. 19). The trial court's instructions to the jury in this case explained the purpose of punitive damages:

> "The basis for allowance of punitive damages rests upon the principle that they are allowed as a punishment to the offender for the general benefit of society, both as a restraint upon the transgressor and as a warning and example to deter the commission of like offenses in the future." App. to Juris. Statement 112a.

The conduct that the jury's punitive damages award sought to regulate was the day-to-day safety procedures of nuclear licensees. There was no factual finding as to how the contamination of Karen Silkwood occurred; the trial judge expressly refused to give an instruction on intentional infliction, and the jury rejected Kerr-McGee's suggestion that Silkwood intentionally contaminated herself. See *ante*, at 3; 667 F.2d, at 915. It is abundantly clear, therefore, that the punitive damages award in this case deters a nuclear facility from operating in the same manner as Kerr-McGee. Authority for a State to do so, however, is precisely what the Court held to be preempted in *Pacific Gas*.[1] Nuclear Regulatory Commission regulations covered virtually every aspect of the incident in which Silkwood was contaminated.[2] The Atomic

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[1] The Court's opinion in *Pacific Gas* seemed to contemplate even the precise issue in the case today. The Court explained:
"It would clearly be impermissible for California to attempt to regulate [the construction or operation of a nuclear powerplant], for such regulation, even if regulated out of non-safety concerns, would nevertheless directly conflict with the [Commission's] exclusive authority over plant construction and operation." —— U.S., at —— (slip op. 19).

[2] See, *e.g.*, 10 CFR § 19.12 (1974) (requiring education of workers concerning hazards of radiation); §§ 20.101-20.108 & app. B (radiation dose standards for individuals both in and outside restricted areas); § 20.202 (use of personnel monitoring equipment); § 20.203 (posting of warnings around radiation areas); § 20.402

Energy Act provides a full enforcement arsenal—including criminal sanctions—to police compliance with federal standards.[3] Indeed, the Commission conducted a complete investigation into the Silkwood contamination, and found no material violation of federal regulations that could justify imposing a fine.[4] The District Court nevertheless instructed the jury to fashion a fine to encourage Kerr-McGee and other nuclear licensees to meet in the future whatever safety standard the jury considered appropriate for plutonium.[5]

(notification of the Commission in the event of loss or theft of nuclear materials); § 403 (notification in the event of exposure to radiation). Part 70 of the Regulations set forth certain terms and conditions imposed on nuclear licenses. See, *e.g.*, §§ 70.23, 70.24, 73.1 (license applicants must be determined to have qualified personnel, equipment, and procedures adequate to protect health and safety and to protect the plant against theft or sabotage of nuclear materials); §§ 70.51, 70.53 (nuclear balance inventory and record keeping for special nuclear materials).

[3] 42 U.S.C. §§ 2271-2284 (1976 ed. and Supp. V). Criminal conviction for willful violations of various provisions of the Act may result in substantial fines and imprisonment. §§ 2272-2278b, 2284. The Attorney General may seek injunctive relief to prevent or stop violations of the Act or the Commission regulations or orders. § 2280. The Commission itself can impose civil penalties for violations of specific licensing provisions of the Act. § 2282. In 1980, Congress increased the maximum civil penalty to $100,000 per violation; if the violation is a continuing one, each day constitutes a separate violation. § 2282(a). Finally, the Commission can initiate proceedings to modify, suspend, or revoke any license issued under the Act, and, in an emergency, can make such action effective immediately. 10 CFR §§ 70.61-70.62 (1974).

[4] The only violations of regulations revealed by the investigation were Kerr-McGee's failure to record the voiding dates for two bioassay samples provided by Silkwood. App. to Motion to Dismiss or Affirm A17.

[5] The regulatory nature of the punitive damage award is evidenced by the jury instruction explaining how punitive damages were to be calculated:

"You may consider the financial worth of the defendant against whom such damages are awarded in determining the size of such

The $10 million fine that the jury imposed is 100 times greater than the maximum fine that may be imposed by the Nuclear Regulatory Commission for a single violation of federal standards. The fine apparently is more than 10 times greater than the largest single fine that the Commission has ever imposed.[6] The complete federal occupation of safety regulation compels the conclusion that such an award is preempted.

It is to be noted, of course, that the same pre-emption analysis produces the opposite conclusion when applied to an award of compensatory damages. It is true that the prospect of compensating victims of nuclear accidents will affect a licensee's safety calculus. Compensatory damages therefore have an indirect impact on daily operations of a nuclear facility. But so did the state statute upheld in *Pacific Gas*. The crucial distinction between compensatory and punitive damages is that the purpose of punitive damages is to regulate safety, whereas the purpose of compensatory damages is to compensate victims. Because the Federal Government does not regulate the compensation of victims, and because it

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an award that is proper under the facts of this case. That is, you may consider the wealth of defendant Kerr-McGee Nuclear Corporation in determining what amount of exemplary damages, if you find them appropriate, is consistent with the general purpose of such an award in deterring the defendant, and others like it, from committing similar acts in the future, and for punishment of the defendant for such acts." App. to Juris. Statement 113a.

The jury was instructed further that compliance with federal standards was not a complete defense to the award of punitive damages:

"You are instructed, however, that you are not bound by these standards. Your duty is to determine what constitutes the exercise of reasonable care in handling plutonium, or the exercise of reckless and wanton conduct, in light of the physical characteristics of that material and the risks associated with it." *Id.*, at 102a.

[6] See N.Y. Times, Oct. 22, 1983, p. 26, col. 5 (largest fine imposed to date is $850,000).

is inconceivable that Congress intended to leave victims with no remedy at all,[7] the pre-emption analysis established by *Pacific Gas* comfortably accommodates—indeed it compels—the conclusion that compensatory damages are not pre-empted whereas punitive damages are.

Differences in the means of calculating compensatory and punitive damages further distinguish the two, and highlight the fundamental incompatibility of punitive damages and federal standards. When a victim is determined to be eligible for a compensatory award, that award is calculated by reference to the victim's injury. Whatever compensation standard a State imposes, whether it be negligence or strict liability, a licensee remains free to continue operating under federal standards and to pay for the injury that results. This presumably is what Congress had in mind when it pre-empted state authority to set administrative regulatory standards but left state compensatory schemes intact. Congress intended to rely solely on federal expertise in setting safety standards, and to rely on States and juries to remedy whatever injury takes place under the exclusive federal regulatory scheme. Compensatory damages therefore complement the federal regulatory standards, and are an implicit part of the federal regulatory scheme.

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[7] In *Pacific Gas*, the Court relied on the fact that there was no federal regulation of the economic considerations of nuclear power as clear evidence that Congress intended to leave such concerns to consideration of the States:

"The Nuclear Regulatory Commission . . . does not purport to exercise its authority based on economic considerations . . . . It is almost inconceivable that Congress would have left a regulatory vacuum; the only reasonable inference is that Congress intended the States to make these judgments." —— U.S., at —— (slip op. 14-15).

The absence of federal regulation governing the compensation of victims of nuclear accidents is strong evidence that Congress intended the matter to be left to the States.

Punitive damages, in contrast, are calculated to compel adherence to a particular standard of safety—and it need not be a federal standard. In setting the punitive damages award in this case, the court instructed the jury to consider "the financial worth of the defendant" and award an "amount of exemplary damages . . . consistent with the general purpose of such an award in deterring the defendant, and others like it, from committing similar acts in the future." The punitive damages award therefore enables a State to enforce a standard that is more exacting than the federal standard. Were Kerr-McGee to continue adherence only to the federal standard, it would presumably be in continuous violation of state law—an indication that the jury award in this case was too small to serve its purpose. A licensee that continues to meet only the federal standard therefore presumably will receive increasingly large punitive sanctions in subsequent personal injury suits, until compliance with the state-imposed safety standard is obtained. At that point, of course, the federal safety standard will have been entirely supplanted. It is incredible to suggest that Congress intended the Federal Government to have the sole authority to set safety regulations, but left intact the authority of States to require adherence to a different state standard through the imposition of jury fines. The obvious conflict shows that punitive damages are pre-empted.

This pre-emption analysis eliminates the "tension" that the Court concedes its disposition creates. It remains faithful to the Federal Government's expressed desire to balance the conflict between promoting nuclear power and ensuring safe operation of nuclear plants. See *Power Reactor Co.* v. *Electricians*, 367 U.S. 396, 404 (1961) ("the responsibility for safeguarding [public] health and safety belongs under the statute to the Commission"). It preserves the ability of States to provide compensation to their citizens for injuries caused by ra-

diation hazards. Finally, it avoids the anomaly of a jury's imposing a fine to regulate activity considered too complicated for state regulatory experts. See H.R. Rep. No. 1125, 86th Cong., 1st Sess., 3 (1959) ("the technical safety considerations are of such complexity that it is not likely that any State would be prepared to deal with them during the foreseeable future").

II

For reasons never expressed in its opinion, the Court rejects the analysis outlined above and opts instead for one that it admits creates "tension between the conclusion that safety regulation is the exclusive concern of the federal law and the conclusion that a State may nevertheless award damages based on its own law of liability." *Ante*, at 17. But, with all respect, in struggling to reach its result, the Court never focuses on the issue in this case. Without explanation, the analysis proceeds as though the issue is whether a victim in a nuclear accident can seek judicial recourse for her injuries. That issue is not in dispute. The issue in this case is not whether a victim of radiation hazards can be compensated under state law. The issue is whether the jury can impose a fine on a nuclear operator in addition to whatever compensatory award is given.

The Court's obfuscation of the issue appears at the outset of its pre-emption analysis, where it states rhetorically:

> "[T]here is no indication that Congress even seriously considered precluding the use of [state law] remedies either when it enacted the Atomic Energy Act in 1954 and or when it amended it in 1959. This silence takes on added significance in light of Congress' failure to provide any federal remedy for persons injured by such conduct. It is difficult to believe that Congress would, without comment, *re-*

> *move all means of judicial recourse for those injured by illegal conduct.*" *Ante*, at 11 (emphasis supplied).

In this passage, the Court responds to an argument that has not been made. Respondent has not attributed to Congress a callous intent to deprive injured victims of compensation. *Pacific Gas* does not imply anything so heartless. Yet the Court's analysis never focuses on the real issue; its entire analysis proceeds as if pre-emption of punitive damages would require pre-emption of compensatory damages as well.

The source of the confusion appears to be an argument by petitioner that a pre-emption analysis of punitive damages and compensatory damages must lead to the same result on the ground that both have a regulatory *effect*.[8] Petitioner thus placed before the Court the bleak—though contrived—choice either to allow punitive damages or to deprive injured victims of "all judicial recourse" for their injuries. As pointed out above, there is no reason that similar treatment of punitive and compensatory damages is required; indeed, *Pacific Gas* requires that a distinction between the two be drawn.

The irony of the Court's approach is that *Pacific Gas*, decided less than a year ago, drew precisely the line that the Court today is unable to find. *Pacific Gas* made clear that the purpose of a statute is critical in a pre-emption analysis under the Atomic Energy Act. In that case, moreover, the parties were in serious dispute over whether the statute in question was motivated out of safety or non-safety concerns. In this case, in contrast, there is no disagreement on the dispositive issue; the Court does not dispute that punitive damages are intended to make a nuclear operator adopt better safety procedures.

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[8] See Brief for Appellant 42-43; Reply Brief for Appellant 6-9.

Petitioner seems also to have obscured the distinction between compensatory and punitive damages by focusing on the role of a jury in awarding compensatory damages in a State, such as Oklahoma, where compensation is allowed only on a showing of negligence.[9] Because a determination of negligence requires a jury to determine a licensee's duty of care, petitioner argued that Congess has demonstrated a willingness to allow a jury to set a standard for licensee conduct. That being the case, petitioner suggested that there is no evidence that Congress intended not to allow a jury to impose a punitive award based on that standard.

It is not at all surprising, however, that Congress would tolerate a jury-imposed negligence standard for awarding compensation. In its desire to promote nuclear power, Congress has never expressed an intention to allow a nuclear licensee to avoid paying for any injury it causes. Indeed, where Congress has determined the liability standard for licensees, it has imposed strict liability.[10] Congress thus has demonstrated its willingness to hold a nuclear licensee liable for all injury that it causes, regardless of whether it is at fault. When a State chooses to impose a *more relaxed* liability standard

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[9] See Reply Brief for Appellant 11-12.

[10] The Price-Anderson Act, Pub. L. 85-256, 71 Stat. 576, was amended in 1966 to remedy what Congress perceived to be state tort law inadequacies in administering compensation for a victim of a major nuclear incident. Pub. L. 89-645, 80 Stat. 891. Those amendments require licensees, as a condition of their receiving approval of financial protection and the indemnity afforded by Price-Anderson, to waive certain state law defenses in the event of a major nuclear incident. See 42 U.S.C. § 2210(n)(1). The waivers assure, *inter alia*, that a victim's entitlement to compensation will be determined under a strict liability standard rather than negligence. Congress required such waivers out of concern that state laws, such as the negligence standard of liability, were ill-suited to the problems of nuclear hazards. See S. Rep. No. 1605, 89th Cong., 2nd Sess., 13 (1966).

on a licensee—such as negligence—the State simply eliminates part of the burden that the Federal Government is willing to have the nuclear industry bear. In effect, a State that uses a negligence standard simply subsidizes the industry at the expense of those numbers of its citizenry that are victims of radiation hazards. The fact that Congress was willing to let States *reduce* the compensatory liability of licensees is hardly support for the notion that Congress would also allow States to set—either through administrative regulation or tort law—standards of care *higher* than the federal standard, and impose fines to secure compliance with them.

Having focused on the wrong issue, the Court seeks to support its wrong result by focusing on the legislative history of the wrong statute. The Court relies heavily on comments made during consideration of the Price-Anderson Act, Pub. L. 85-256, 71 Stat. 576. Congress enacted that statute in 1957 out of concern that the potential liability arising from a nuclear occurrence exceeded the amount of insurance a licensee could obtain. Congress perceived that the unavailability of unlimited insurance was deterring private investment in nuclear energy projects. Price-Anderson therefore established a liability system to compensate victims in the event of an "extraordinary nuclear occurrence." The system has three major components: 1) it empowers the Commission to require a licensee to have financial protection up to $60 million of liability; 2) it provides for federal indemnification for the next $500 million; and 3) it sets the $560 million thus aggregated as the limit of liability for any one nuclear incident (with a procedure for apportioning that amount should claims arising from the incident exceed $560 million). After that limit, any additional compensation to victims would require further action by Congress. Price-Anderson also requires a licensee to waive certain defenses that, most importantly, make clear that in the event of an "extraordinary nu-

clear occurrence," the licensee will be strictly liable for the injuries it causes.

Price-Anderson's legislative history plainly demonstrates that except in the event of an extraordinary nuclear occurrence, Price-Anderson does not interfere with state tort law. For example, the Joint Committee report on the bill that later became Price-Anderson explained:

> "The basic principles *underlying the bill* are two:
>
> 1. Since the rights of third parties who are injured are established by State law, there is no interference with the State law until there is a likelihood that the damages exceed the amount of financial responsibility required together with the amount of the indemnity [*i. e.*, $560 million]. At that point the Federal interference is limited to the prohibition of making payments through the State courts and to prorating the proceeds available.
>
> 2. . . . ." S. Rep. No. 296, 85th Cong., 1st Sess., 9 (1957). (emphasis added).

The Court relies on this passage to demonstrate, in its view, that the entire corpus of "state tort law" is available for application in any suit arising out of a nuclear incident. *Ante*, at 13-14. Such an interpretation simply ignores the context of the statement, and produces a variety of incongruities that the Court fails to address.

The Court's opinion omits from its quotation the first line of the passage. That line makes clear that the passage describes only the underlying principles of the Price-Anderson Act; it does not purport to be a description of the relationship between all federal nuclear regulation and state tort law. The passage demonstrates that Price-Anderson interferes with state tort law only in certain limited situations. But the question in this case is not whether Price-Anderson preempted punitive dam-

ages; the issue is whether the Atomic Energy Act pre-empted punitive damages in 1954. Thus, the legislative history on which the Court bases its argument simply begs the question of how much state tort law remained in place before Price-Anderson was enacted.

It is hardly surprising, moreover, that proponents of Price-Anderson emphasized how little their proposed legislation would interfere with state tort law. As with any federal legislation that pre-empts the powers of the States, Price-Anderson undoubtedly prompted concern about federal intrusiveness. To assuage such concerns, proponents of Price-Anderson and later federal statutes regulating nuclear power emphasized the minimal federal intrusion of the proposed legislation.[11] But such statements provide a most uncertain basis on which to interpret the pre-emption that resulted from earlier federal statutes. On the relevant issue—the pre-emption of state law accomplished by the Atomic Energy Act in 1954—this Court already has concluded that the pre-emption of nuclear safety concerns was complete.

By using Price-Anderson's legislative history in 1957 to conclude that the 1954 Act leaves all of state tort law intact, the Court implicitly proves too much. Surely the Court would concede that Congress did not intend, for example, to allow a state court to entertain a nuisance action and enjoin the operation of a nuclear power plant on the ground that the plant was unsafe. Similarly, the Court must agree that a state court could not enjoin in a trespass action the release of effluents from a plant that was in compliance with Commission standards. Yet the Court's position rests on the notion that state tort law must be treated as an undifferentiated body of law, and that all tort remedies have been left intact.

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[11] See, *e.g.*, H.R. Rep. No. 435, 85th Cong., 1st Sess., 9 (1957); S. Rep. No. 1605, 89th Cong., 2d Sess., 5 (1966).

The Court's interpretation of Price-Anderson's legislative history produces even greater incongruities in the operation of Price-Anderson itself. As explained above, the Price-Anderson liability scheme provides federal indemnification for liability above $60 million and below $560 million. The purpose of the indemnification is to provide compensation for victims and to minimize the exposure of nuclear licensees. But the Court's inconsonant holding leads to the anomalous result that in the event of a nuclear accident in which liability exceeds $60 million, the *Federal Government* might will have to pay *punitive* damages to the victims of the accident. By definition, such payments would not serve a compensatory purpose; nor would they have the deterrent effect on licensees that justifies imposing them. Congress could not have intended so paradoxical a result.

Once again, the logical way out of this paradox is a conclusion that Congress assumed that punitive damages would not be awarded under Price-Anderson.[12] But such an assumption is now unavailable to the Court: the same passages the Court uses to demonstrate that "there is no interference with . . . State law" except in the event of a nuclear occurrence also make clear that even then the "Federal interference is limited to the prohibition of making payments through the state courts and to prorating the proceeds available." Accordingly, it is clear that Price-Anderson itself would not pre-empt punitive damages, and the Court's position puts the Federal Government in the absurd position of paying them.

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[12] Such an assumption is fully consistent with the legislative history of the Act which, when read in context, makes clear that its objective is to provide compensation to persons that suffer injuries. See, *e.g.*, S. Rep. No. 206, 85th Cong., 1st Sess., 8 (1957) (Price-Anderson offers "a practical approach to the necessity of providing adequate protection against liability arising from atomic hazards as well as a sound basis for *compensating the public for any possible injury or damage arising from such hazards*") (emphasis supplied).

The Court's holding produces similar incongruities in the application of Price-Anderson to an accident in which liability exceeds the $560 million dollar limit. In that situation, Price-Anderson provides for the prorationing of claims. If punitive damages are allowed, victims with large punitive awards would receive awards greatly in excess of compensation, while other victims would receive less than full compensation. Such a result would be grossly inequitable, and in clear conflict with Price-Anderson's goal of compensating victims of a nuclear accident. Once again, the obvious implication of this result is that Congress assumed that punitive damages would not be available. Yet the Court rejects this assumption by insisting that references to "state tort law" in the legislative history demonstrate that punitive damages have never been pre-empted.

III

The Court's analysis ends where it began, still focused on the wrong issue. In the last paragraph of its analysis,[13] the opinion once again acknowledges the anomaly of its disposition, but explains that

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[13] The next to last paragraph of the analysis seems to reflect similar confusion. The paragraph is an attempt to respond to respondent's argument that punitive damages conflict with the desire of Congress to promote nuclear power. The Court explains:

"Congress . . . disclaimed any interest in promoting the development and utilization of atomic energy by means that fail to provide adequate *remedies for those who are injured by exposure to hazardous nuclear materials.* Thus, the award of punitive damages in this case does not hinder the accomplishment of the [congressional] purpose . . . ." *Ante*, at 12 (emphasis supplied).

There is no claim in this case that Congress pre-empted remedies to compensate those who are injured by exposure to hazardous nuclear materials. Unless the statement is meant to suggest that remedies are not "adequate" unless they include punitive damages—an argument which the Court does not put forward and which would be difficult to make given that some States do not allow punitive damages—then the statement has little relevance to the issue in this case.

> "Congress did not believe that it was inconsistent to vest the NRC with exclusive regulatory authority over the safety aspects of nuclear development while at the same time allowing plaintiffs like Silkwood to *recover for injuries caused by nuclear hazards*. We are not [illegible]d to second-guess that conclusion" (emphasis supplied). *Ante*, at 18.

Not only are we not authorized to second-guess Congress' conclusion, but we have not been asked to do so. At the risk of repetition, this case is not about whether Karen Silkwood can recover for her injury; it is about whether a person injured by radiation can be awarded an amount in excess of the injury sustained in order to encourage all nuclear operators to spend more on safety. On that issue, the Court's position is plainly inconsistent with its earlier holding in *Pacific Gas* that "the Federal Government has occupied the entire field of nuclear safety concerns." —— U. S., at —— (slip op. 19). The Court's insistence on obfuscating the issue in this case cannot change the will of Congress on the issue that is truly before us.

SUPREME COURT OF THE UNITED STATES

No. 81-2159

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Appellant

v.

KERR-MCGEE CORPORATION, ETC., *et al.*

On Appeal from the United States Court of Appeals for the Tenth Circuit

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[January 11, 1984]

JUSTICE POWELL, with whom THE CHIEF JUSTICE and JUSTICE BLACKMUN join, dissenting.

The Court's decision, in effect, authorizes lay juries and judges in each of the states to make regulatory judgments as to whether a federally licensed nuclear facility is being operated safely. Such judgments then become the predicate to imposing heavy punitive damages. This authority is approved in this case even though the Nuclear Regulatory Commission (NRC)—the agency authorized by Congress to assure the safety of nuclear facilities—found no relevant violation of its stringent safety requirements worthy of punishment. The decision today also comes less

than a year after we explicitly held that federal law has "preempted" all "state safety regulation" except certain limited powers "expressly ceded to the states." *Pacific, Gas and Electric Co.*, 103 S.Ct., at 1726.[1] There is no express authorization in federal law of the authority the Court today finds in a state's common law of torts.

Punitive damages, unrelated to compensation for any injury or damage sustained by a plaintiff, are "regulatory" in nature rather than compensatory. The Court of Appeals for the Tenth Circuit so found in this case—prior even to our decision in *Pacific, Gas and Electric Co. Silkwood* v. *Kerr-McGee Corp.*, 667 F.2d 908, 922 (10th Cir. 1981). It also concluded that punitive damages are "no less intrusive than direct legislative acts of the state." *Id.*, at 923; *see San Diego Building Trade Council* v. *Garmon*, 359 U.S. 236, 247 (1959). I agree with the Court of Appeals.

I

The facts are instructive. During a three-day period in November 1974, petitioner Silkwood was contaminated by plutonium from one of respondent Kerr-McGee's plants that had been built and was operated pursuant to federal law and subject to extensive regulation by the AEC. Silkwood was absent from her job for only a week—from November 7 until she returned to work on November 13. That night she was killed—as the Court states—"in an unrelated automobile accident." *Ante*, at 3. There is no evidence that Silkwood suffered any specific injury,[2] tem-

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[1] In *Pacific, Gas and Electric Co.*, we held:

"State safety regulation is not preempted only when it conflicts with federal law. Rather, the federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the states. When the federal government completely occupies a given field or an identifiable portion of it, as it has done here, the test of preemption is whether 'the matter on which the state asserts the right to act is in any way regulated by the federal government'." *Id.*, at 1726.

[2] The autopsy after Ms. Silkwood's death indicated that her body contained 8.8 nanocuries of plutonium. AEC regulations

porary or permanent, other than mental distress for a short period. In a state law tort action against Kerr-McGee brought by Silkwood's father, the jury awarded "actual damages" of $505,000 and "punitive damages" of $10 million. The District Court entered judgment on the verdict.

Where injury is sustained as a result of the operation of a nuclear facility, it is not contested that *compensatory* damages under state law properly may be awarded. Rather, in view of the purpose and effect of *punitive* damages, the question is whether such damages may be imposed not to compensate the injured citizen or her family but solely to punish and deter conduct at the nuclear facility.[3]

A

The purpose of a punitive damages award was made clear by the District Court's instructions. The jury was authorized to impose such damages to "punish":

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specified that the permissible body burden of plutonium for employees of nuclear facilities was 40 nanocuries. Disagreeing with the AEC, an expert witness for petitioner speculated at trial that the amount of plutonium contamination Ms. Silkwood experienced might have manifested itself in the form of lung cancer and chromosome damage at some future date.

[3] The distinction in this case between the two types of damages is of major importance. There is no element of regulation when compensatory damages are awarded, especially when liability is imposed without fault as authorized by state law. Moreover, personal injuries are finite. To be sure, as the compensatory award in this case illustrates, these can result in large compensatory judgments. But juries do have guidance from physicians, medical records, lost wages, and—where permanent disability or death occurs—actuarial testimony as to lost earnings and life expectancy. None of these is present when punitive damages are awarded. The contrast also is illustrated by this case. A jury with neither pre-trial knowledge of nuclear plant operations nor evidence to guide or limit its discretion, chose $10 million. It could, as well, have been almost any other amount.

> "the offender for the general benefit of society, both as a restraint upon the transgressor and as a warning and example to deter the commission of like offenses in the future." [4]

The jury also was advised that punitive damages need not be proved by "direct evidence of fraud, malice or gross negligence." Rather, these could be "inferred." *Ante*, at 5. Although there was no evidence showing a direct causal connection between any Kerr-McGee neglect and Silkwood's minor contamination, two witnesses—testifying as experts—found fault in general with operations at the plant such as inadequate employee training and lack of supervision.[5] The NRC, in the discharge of its regulatory responsibility, had cited the plant some 75 times over a period of years for various minor violations.[6] None of the violations, however, was shown to have caused the contamination, or deemed substantial enough to justify imposition of fines by the NRC.[7] Moreover, the Com-

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[4] The trial court also instructed the jury that the size of any punitive damage award should be "consistent with the general purpose of such an award in deterring the defendant, and others like it, from committing similar acts in the future, and for punishment of the defendant for such acts."

[5] Silkwood also proffered reports of AEC investigations of incidents occurring in 1971, 1972, and 1973. The incidents of most concern were a fire on March 5, 1973 and radioactive seepage from a waste container discovered on September 25, 1973. Neither incident resulted in any contamination outside the Kerr-McGee plant or in any injury from contamination of Kerr-McGee employees. The AEC did not fine the company in either instance. Other testimony on behalf of Silkwood criticized generally the training of new personnel, the use of respirators in contaminated areas, the design of glove boxes in the plant, and a perceived lack of awareness of Kerr-McGee employees that exposure to plutonium may cause cancer.

[6] It is evident from these facts that the NRC has been diligent and thorough in overseeing the safety of the Kerr-McGee plant.

[7] In fact, except for the contamination of Silkwood that caused her to lose seven days of work, there was no evidence that anyone else had ever been injured by contamination from the Kerr-McGee

mission had investigated the physical security system at the plant only two months before Silkwood's contamination and found no significant deficiencies. After her contamination occurred, the NRC conducted an investigation of that incident. Again, no significant violation of AEC regulations was found. *See ante*, at 4; AEC Regulatory Operations Investigatory Report No. 74-09 (December 16, 1974), at 5.

Nevertheless, the jury imposed $10 million of punitive damages, and on a motion for judgment N. O. V. the district court agreed with the jury's award, based on its finding that the "escape of plutonium [was] caused by grossly negligent, reckless and willful conduct." 485 F. Supp. 566, 585 (W. D. Okla. 1979). These serious conclusions simply were "inferred"—in the absence of specific evidence—from the fact that some plutonium contamination had occurred and from the testimony of petitioner's experts as to overall operating conditions at the plant.

The Court defends the awarding—even on the basis of inferences—of punitive damage judgments by lay juries with no competency to understand the highly sophisticated technology of nuclear facilities. In doing so, it states: "Congress assumed that traditional principles of state tort law would apply with full force unless they were expressly supplanted. . . . [T]he company is unable to point to anything in the legislative history or in the regulations that indicates that punitive damages were not

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plant. There was evidence of one incident involving minor contamination outside the plant that occurred on April 17, 1972. In that instance, three maintenance personnel at the plant violated company regulations by leaving for breakfast without checking themselves for signs of contamination. Upon their return, it was discovered that they had received low level contamination prior to leaving for breakfast. None of these employees was shown to have suffered any injury. The amount of contamination involved in this incident was so minimal that an AEC official testified that there was no need for Kerr-McGee to report it to the AEC.

to be allowed." *Ante*, at 16. In my view, this conclusion is irreconcilable with *Pacific, Gas and Electric Co.*'s preemption holding.

B

We stated in *Pacific, Gas and Electric Co.* that "Congress has occupied entirely the field of nuclear safety concerns." *Id.*, at 1726. On its face this is a holding that state action of any kind in this area is preempted, whether or not Congress has been silent on specific issues that may arise. *See Fidelity Federal Savings & Loan Ass'n* v. *de la Cuesta*, 102 S. Ct. 3014, 3022 (1982); *United States* v. *Shimer*, 367 U.S. 374, 381-383 (1961). We reiterated this principle of preemption in *Pacific, Gas and Electric Co.* when we held that only those "powers *expressly* ceded to the states" are not preempted. 103 S. Ct., at 1726 (emphasis added).

Silkwood concedes that Congress did not refer to punitive damages in the text or legislative history of the 1954 Act or its subsequent amendments. The absence of an express reference appears plainly to bring state law of punitive damages within the sweeping preemption we found that Congress intended in *Pacific, Gas and Electric Co.* Nevertheless, the Court today makes an exception to the rule announced only last term by refusing to find preemption unless the party arguing *for* preemption can find direct support in the statute, legislative history, or regulations. Where broad federal preemption has been found, the burden of proving an exception always should be on the party who wishes to rely on state law. The Court's decision today inexplicably shifts this burden to allow state law to prevail in the absence of a showing that Congress expressly had intended to preempt it.

The Court does purport to find some indirect evidence of congressional intent not to preempt state punitive damages law in the legislative history of the Price-Anderson Act, enacted in 1954. In considering the relevance of this Act, it is important to bear in mind that it did not apply

at all to the Kerr-McGee plant at the time of this incident, and that its purpose was not regulatory in any relevant sense whatever. Price-Anderson was the result of concern, particularly prevalent when experience with nuclear energy had been limited, that extraordinary nuclear disasters could occur. In anticipating such an occurrence, the primary concern—of course—was to assure compensation for persons who suffered loss or injury. *Duke Power Co.* v. *Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 93 (1978). A secondary, but nonetheless important concern, was that private enterprise be encouraged to build and operate nuclear power plants to meet the anticipated energy needs of our nation. With the then uncertain prospect of a nuclear plant disaster that would bankrupt the utility, some sort of federally backed insurance plan was desirable in the overall public interest as well as that of the primary victims who suffered injury. *Id.*, at 63-65. Accordingly, in summary, Price-Anderson provided that the aggregate liability for a single nuclear accident may not exceed $560 million. Licensees were required to purchase the maximum amount of insurance available in the commercial insurance industry (approximately $60 million), and the government agreed to indemnify licensees for the remainder. In addition, Price-Anderson required that licensees must waive all legal defenses and must agree to be subject to strict liability in the event of an extraordinary nuclear occurence. *Id.*, at 65.

Thus, neither the Price-Anderson Act itself or its purposes are relevant to this case. Petitioner and the Court, finding nothing whatever in the legislative history of the Atomic Energy Act, cited several statements in the legislative history of Price-Anderson that there was no intention to change state tort law.[8] There is no mention in this history of state punitive damages law. The argu-

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[8] *See, e.g.*, S. Rep. 1605, 89th Cong., 2d Sess. 25 (1966); S. Rep. No. 296, 85th Cong., 1st Sess. 9, 22 (1959).

ment, however, is that "tort law" includes both compensatory and punitive awards. This may be true generally but certainly not necessarily true in the context in which the term "tort law" was used in Price-Anderson. When considering legislation addressing the possibility of a catastrophic nuclear accident, it was natural for Congress to make clear that the availability of compensatory damages in ordinary personal injury and property damage cases was not at issue. Such damages were to be imposed without fault. Congress was not concerned in that Act with the "punishment" of nuclear plants through jury imposition of punitive damages.

However one may view the bits and pieces of the Price-Anderson Act's legislative history, for present purposes the regulatory plan would appear to be clear. The regulation of nuclear safety then, as now, had been entrusted by a different Act to an expert body with full authority to issue comprehensive regulations, assess penalties, and with the obligation to oversee the safety of nuclear operations.

II

Even if *Pacific, Gas and Electric Co.* had not been decided, I would find preemption of punitive damages awards because they conflict with the fundamental concept of comprehensive federal regulation of nuclear safety.[9] See *Hines* v. *Davidowitz*, 312 U.S. 52, 67 (1941).

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[9] Silkwood argues that the regulation of Kerr-McGee's conduct through punitive damages is an area of local, rather than federal, concern. Assuming *arguendo* that this assertion is correct, the degree of local concern is irrelevant. Federal preemption doctrine applies regardless of the importance of the issue to local authorities. *Fidelity Federal Savings & Loan Ass'n*, 102 S. Ct. at 3022. As the Court stated in *Free* v. *Bland*, 369 U.S. 663 (1962): "The relative importance to the State of its own law is not material when there is a conflict with a valid federal law, for the Framers of our Constitution provided that the federal law must prevail." *Id.*, at 666.

A

Congress has been committed to the policy of encouraging private development of nuclear energy from 1954 to the present.[10] We explicitly recognized this commitment in *Pacific Gas & Electric Co.*, 103 S. Ct., at 1723. The economy particularly of the western democracies—perhaps, indeed, democracy itself—depends upon the energy that is now primarily derived from fossil sources. No informed person suggests that these sources are inexhaustible. We had a brief but shattering experience in 1973 during the embargo on Middle East oil. The effect of this experience confirmed the wisdom—indeed necessity—of identifying and exploiting alternate energy sources—particularly for the long term. The most promising new source identified to date is nuclear generated energy.

Public safety always has been an overriding concern both in government regulation and the industry. Striking the balance between the need to promote nuclear development and the responsibility to insure public safety is a task that requires a unique level of professional expertise. Congress has enacted detailed legislation and created a highly qualified administrative agency to promulgate and enforce regulations.[11] Those regulations con-

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[10] As a result of advances in nuclear technology, the percentage of total electricity produced in the United States by nuclear means rose from zero in 1954 to 12% in 1981. *See* Statistical Abstract of the United States, 1982-1983, at 581; Historical Statistics of the United States, Vol. II, at 95-107. During that period, and to this day, I do not recall that any fatalities have occurred as a result of contamination from nuclear facilities. Much of the credit for the progress and safety record of the nuclear industry also must go to Congress for enacting appropriate safety regulatory authority and to the action and oversight of the AEC and its successor, the NRC.

[11] Congress gave the AEC several means of enforcing its regulations. The Act provides for injunctive remedies, civil penalties, and revocation of licenses for violation of the terms and conditions of the license. 42 U.S.C. §§ 2236, 2280, and 2282. The Act also provides

stitute a uniform body of law carefully designed to balance safety and efficiency in nuclear facilities across the country. *Northern States Power Co.* v. *Minnesota*, 447 F.2d 1143, 1153-1154 (8th Cir. 1971), *aff'd mem.*, 405 U.S. 1035 (1972).

The effectiveness of the overall program requires that nuclear policy and regulation be insulated from *ad hoc*, uninformed and perhaps biased decision-making.[12] It is reasonable for a nuclear facility to be held liable, even without fault on its part, to compensate for injury or loss occasioned by the operation of the facility. It is not reasonable to infer that Congress intended to allow juries of lay persons, selected essentially at random, to impose unfocused penalties solely for the purpose of punishment and some undefined deterrence. These purposes wisely have been left within the regulatory authority and discretion of the NRC.[13]

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criminal sanctions for willful violations of the Act and most AEC regulations. 42 U.S.C. §§ 2272 and 2273.

[12] In recent years there has been a dramatic increase in public concern over all nuclear activities—a concern that may well influence juries. No doubt this has been caused by the public's new awareness of the potential for vast destruction through the use of nuclear weapons—an awareness evidenced by the now commonplace demonstrations and anti-nuclear groups and movements that can exist, of course, only in the free world. Often little or no distinction is made between nuclear power plants designed to help insure the future of our civilization and the proliferation of nuclear weapons that could destroy it. Those who fail to see this distinction seem to be unaware of the overall safety record of the nuclear power industry in the United States and other countries. *See* Cohen, *Most Scientists Don't Join in Radiation Phobia*, Wall St. J., Nov. 30, 1983, at 28, col. 4 ("even well educated segments of the American public are badly misinformed" as to the risks associated with the nuclear power industry).

[13] The Atomic Energy Act currently provides that the NRC can levy civil penalties for violations of licensing provisions, rules, regulations, or orders. 42 U.S.C. § 2282 (Supp. IV, 1980). The penalties may not exceed $100,000 for each violation, but where a violation is

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This case is a disquieting example of how the jury system can function as an unauthorized regulatory medium. Under accepted principles of tort law punitive damages may not properly be awarded on the basis of negligent conduct. A jury therefore must find malicious, wanton or grossly negligent conduct. As noted above, the evidence presented by plaintiff at the trial for the most part was wide ranging "expert" testimony as to the overall operation of the defendant plant. There was little evidence related in any causal way to the plutonium leak that contaminated Ms. Silkwood. Nor was there any evidence whatever of the "oppression," "fraud," "malice" or "wanton reckless[ness]" mentioned in the trial court's inflammatory instructions to the jury. See *ante*, at 5.

More importantly, the trial court did not instruct the jury, as would have been proper, that if it found that Kerr-McGee had complied with the regulations there could be no finding of fraud, malice or wanton or reckless conduct. Rather, in effect, the jury was told that *it* could decide that the regulations were invalid:

> "Such regulations do not have to be accepted by you as right or accurate if they defy *human credence*, are questionable under best scientific knowledge, or can be shown not to accomplish their intended purpose." Jury Instruction 27. (Emphasis added)

Until today, I had not understood that a jury lawfully could be instructed on the basis of its own determination

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a continuing one, each day of the violation is considered a separate violation. *Ibid.* At the time of Ms. Silkwood's contamination, the maximum limit on civil penalties was $25,000. 42 U.S.C. § 2282 (1976), amended by Pub. L. No. 96-295 (1980). By establishing maximum fines, Congress implicitly stated its views on the size of monetary penalties it deemed sufficient to achieve both punishment and deterrence. *See* H.R. Rep. No. 96-1070, 96th Cong., 2d Sess. 33-34 (1980); S. Rep. No. 96-176, 96th Cong., 1st Sess. 23-24 (1979).

of "human credence" to conclude that a presumptively valid federal regulation simply could be ignored. This Court nevertheless—without knowing which of the jumble of instructions the jury actually followed [14]—concluded that the award of punitive damages does not conflict with the regulation program established by Congress and the AEC. On the record, it is at least more likely than not that the jury totally ignored federal regulations as authorized by the trial court. Moreover, the Court attaches no importance to the fact that the AEC—the agency that adopted the regulations and is responsible for their enforcement—investigated the Silkwood incident and found no significant violation of its regulations. See, *supra*, at ——.

C

As support for its conclusion that punitive damages and federal nuclear safety regulation do not conflict, the Court states that Congress did not intend to promote private development of nuclear power "by means that fail to provide adequate remedies for those who are injured by exposure to hazardous nuclear materials." *Ante*, at 18. The Court cites no authority—in the statute, its history or the regulations—for its view that Congress intended that "adequate remedies" for persons injured should include "award[s] of punitive damages". Nor was this case tried on the theory that punitive damages could be awarded as a remedy for injuries suffered by Silkwood. The instructions to the jury were precisely to the contrary, and were explicit that the purpose of punitive damages was to "punish" the "offender for the general benefit of society". *Supra*, at 3, and n. 3. And Silkwood has

[14] The instructions invited the jury to condemn the entire operation of the Kerr-McGee plant. The instructions, purporting to state "the law" that the jury was "bound to follow," were some 10,000 words long, requiring 30 pages in the printed appendix. They were repetitive, arguably conflicting, and would have confused a panel of experienced lawyers. It is unlikely that any lay juror had any idea what law he or she was called upon to apply.

not argued in this Court that the $505,000 of "actual damages" awarded were inadequate for the injury suffered in this case. The $10 million of punitive damages were simply a windfall for Silkwood.

III

In sum, the Court's decision will leave this area of the law in disarray. No longer can the operators of nuclear facilities rely on the regulations and oversight of the NRC. Juries unfamiliar with nuclear technology may be competent to determine and assess compensatory damages on the basis of liability without fault. They are unlikely, however, to have even the most rudimentary comprehension of what reasonably must be done to assure the safety of employees and the public.[15] The District Court in this case, by instructing the jury that it could infer malice, fraud or gross negligence (see, *supra*, at 3), in effect authorized the jury to impose punitive damages *without fault*. And, to make sure that the jury understood its standardless freedom in this respect, the Court also instructed the jury that it could ignore the regulations prescribed by the NRC if in its opinion they defied "human credence" or "can be shown not to accomplish their intended purpose". *Supra*, at 11.

We hardly could have spoken more clearly in *Pacific Gas & Electric Co.* on April 20, 1983, on the issue of preemption.

> "State safety regulation is not preempted only when it conflicts with federal law. Rather, the federal gov-

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[15] The Court cites a House Report in which Congress expressed its misgivings about the ability of the states to deal with the complex and technical nature of the safety considerations in the nuclear industry. *See* H.R. Rep. No. 1125, 86th Cong., 1st Sess. 3 (1959). The Court, nevertheless, is willing to allow a jury, untrained in even the most rudimentary aspects of nuclear technology, to impose heavy penalties on the basis of its own perceptions or prejudices.

> ernment has occupied the entire field of nuclear safety concerns . . ." *Id.*, at 1726.

This left no doubt whatever as to the sole responsibility for nuclear safety regulation under the governance of the Nuclear Regulatory Commission and its large staff—experts in the technology and safety controls of nuclear energy. This case makes clear the correctness of the Court's holding in *Pacific Gas & Electric Co.* Today, the Court opens a wide and inviting door to indirect regulation by juries authorized to impose damages to punish and deter on the basis of inferences even when a plant has taken the utmost precautions provided by law. Not only is this unfair; it also could discourage investment needed to further the acknowledged national need for this alternate source of energy. I would affirm the judgment of the Court of Appeals.

APPENDIX C

UNITED STATES COURT OF APPEALS
TENTH CIRCUIT

No. 79-1894

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Plaintiff-Appellee,

v.

THE KERR-MCGEE CORPORATION, a Delaware corporation, and KERR-MCGEE NUCLEAR CORPORATION, a Delaware corporation,
Defendants-Appellants.

Argued Nov. 17, 1980

Decided Dec. 11, 1981

Rehearing Denied Feb. 19, 1982

Before DOYLE, McKAY and LOGAN, Circuit Judges.

LOGAN, Circuit Judge.

This is an appeal by Kerr-McGee Corporation and Kerr-McGee Nuclear Corporation (hereinafter collectively referred to as Kerr-McGee) from judgments after jury trial in a diversity suit brought against them by Bill M. Silkwood as administrator of the estate of Karen

Silkwood, deceased. The action was based upon common law tort principles[1] under Oklahoma law, and sought damages for injuries (primarily fear and anxiety) suffered by Karen Silkwood during a nine-day period as a result of plutonium contamination occurring November 5, 6, and 7, 1974. Her death on November 13, 1974, in an unrelated automobile accident marked the end of any damages that might have been suffered had she lived beyond that date. The jury awarded $500,000 damages for these injuries and an additional stipulated $5,000 for property in her apartment that had to be destroyed because it was contaminated. In addition it awarded $10,000,000 punitive damages. The opinion of the trial court overruling Kerr-McGee's post-trial motions is reported at 485 F.Supp. 566 (W.D.Okl.1979).

A number of issues are raised and argued on appeal, including applicability of the Oklahoma Workers' Compensation Act as the exclusive remedy, federal preemption, standard of care, applicability of strict liability, availability of certain defenses, excessiveness of actual damages, invalidity and excessiveness of punitive damages, insufficiency of the evidence, and denial of a fair trial because of adverse publicity, prejudicial conduct of counsel, and errors in evidentiary rulings and instructions to the jury. We recite below such essential facts and treat such of these issues as are necessary to resolve all aspects of the appeal.

I. *Personal Injury*

Karen Silkwood was a laboratory analyst at the Cimmaron plant of Kerr-McGee located near Crescent, Oklahoma. The plant fabricated fuel pins containing pluto-

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[1] Civil Rights Act and federal constitutional claims were also asserted in the original petition. The trial court's dismissal of those claims was affirmed in a separate appeal. *Silkwood v. Kerr-McGee Corp.*, 637 F.2d 743 (10th Cir. 1980), *cert. denied*, —— U.S. ——, 102 S.Ct. 132, 70 L.Ed.2d 111 (1981).

nium for use as reactor fuel. Silkwood was contaminated by plutonium on November 5, 6, and 7, 1974, and the parties have stipulated that this plutonium came from the Kerr-McGee plant. Precisely how and when the contamination occurred is not stipulated and there is little evidence to fill this void.

Plutonium is an artificially produced radioactive chemical element which has been instrumental in the development of nuclear weapons and nuclear power. It emits alpha particles, beta particles, neutrons, gamma rays, and x-rays. The extent of radiation damage to human cells exposed to plutonium is dependent upon the amount of energy in the radiation. Alpha particles have the largest mass, carry the greatest amount of energy, and are the most hazardous. Damage can occur when alpha particles strike a cell. Damage to an individual cell is not, however, invariably harmful to the human body; a cell is capable of repairing itself and the body normally sheds and replaces millions of cells on a continuous basis. It is acknowledged, however, that plutonium is one of the most carcinogenic and dangerous substances known.

Silkwood was a member of the Oil, Chemical and Atomic Workers Union (OCAW), which represented some of the workers at Kerr-McGee's plant. As an elected member of the union negotiating team, Silkwood was responsible for health and safety matters. In September 1974 she, together with her fellow committee members, met with OCAW leaders in Washington, D. C., and presented charges to the Atomic Energy Commission (AEC) of numerous health and safety violations by Kerr-McGee. The AEC required documentation of the charges, and Silkwood was asigned the job of collecting this documentation. Silkwood was engaged in collecting information and recording it in notebooks and on tapes from September 1974 until the time of her death.

There is no real dispute in the evidence concerning Silkwood's contamination. She reported to work at the

Cimmaron plant on November 5, 1974, at 1:20 p.m. At 2:45 p.m. and at 3:15 p.m., before and after taking a break, Silkwood monitored herself with plutonium detecting devices provided by Kerr-McGee in accordance with the company policies and AEC license requirements. No plutonium was detected on her person. At about 3:45 p.m. Silkwood began to work in two glove boxes containing plutonium. A glove box is a supposedly impervious box surrounding the plutonium processing equipment which has glove holes permitting the operator to work on the equipment or with the plutonium from outside the box. Silkwood again monitored herself before and after her break at 5:30 p.m. and at 5:45 p.m., and at those times detected no contamination. She continued to work in the glove boxes and, upon withdrawing her hands from one of the boxes at about 6:30 p.m., she found contamination. Further checks were made in the laboratory and other contaminations were found, particularly inside the gloves in the glove box in which Silkwood had been polishing and cleaning plutonium.

Contamination was found on Silkwood's left hand, right wrist, upper arm, neck, face, hair, and in her nostrils. Pursuant to regulations, Silkwood was immediately decontaminated and placed on a five-day voiding collection program, and furnished urine and fecal kits to take home for the purpose of obtaining samples which would be sent to the United States testing laboratory for analysis. Later that day Silkwood returned to work, but not to the glove boxes; she monitored herself when she left work at about 1:10 a.m. and found no contamination. The glove box was later tested by the AEC investigators, and no leaks were found. Further, the investigators found no significant airborne contamination in the laboratory.

The next day, November 6, 1974, Silkwood arrived at work at 7:50 a.m., and did some paper work in the lab until 8:50 a.m., at which time she left to attend a

union meeting. At that time she tested herself and found contamination on her hands; tests showed fixed contamination on her right forearm, face, and neck. Her hands were decontaminated; since the other spots appeared to be fixed contamination she was allowed to attend the union meeting. She returned to the health office at 4:30 p.m., where slight contamination was found on her right forearm, neck and face, and in her nostrils. She was again decontaminated and, at her request, her locker and auto were tested and found to be free of contamination.

On November 7, 1974, when she reported to work Silkwood went directly to the plant's health physics office. She was found to be contaminated in her nostrils and on her hands, arms, chest, back, neck and right ear. Four urine and one fecal sample collected on November 5th, 6th and 7th were found to be contaminated, although the exterior of the kits showed no contamination. The parties stipulated that urine samples brought to the plant had been spiked with plutonium; that is, they contained insoluble, not naturally excreted, plutonium. Also, Silkwood's apartment was found to have been contaminated, with highest concentrations of plutonium found in the bathroom and on a package of bologna and cheese in the refrigerator.

Silkwood's roommate, Sherri Ellis, was also a laboratory analyst at Kerr-McGee, and was found not to be contaminated when she left work at 8:00 a.m. on November 7th after working a midnight shift. After returning to the apartment, Ellis used the bathroom and retired to her bedroom. Subsequent checks revealed contamination of Ellis' buttocks and hands. Ellis' auto and the refrigerator where her lunch had been placed in the plant lunchroom were free of contamination. Silkwood's boyfriend, who spent the night of November 6th in Silkwood's apartment, had left the apartment at about 7:00

a.m. on November 7th after using the bathroom. Neither he, his car, nor his residence were contaminated.

Silkwood's possessions were destroyed and Silkwood was sent to the Los Alamos Scientific Laboratory in New Mexico to undergo further tests concerning her contamination. She reported back to work on November 13th at which time she was reassigned. She participated in a union negotiating session that day, met with AEC inspectors concerning her contamination, and attended a union strategy session. On her way to meet a *New York Times* reporter and an OCAW leader, Silkwood was killed in an automobile accident. A subsequent autopsy revealed that the amount of plutonium within Silkwood's body at the time of her death was between 25% and 50% of the permissible lifetime body burden allowed by the AEC for plutonium workers.

Silkwood made statements that she had spilled her urine sample in her bathroom between 7:00 and 7:50 a. m. on November 7th, after her boyfriend left and before her roommate returned to the apartment from work. Silkwood stated that at the time she spilled the urine sample, a package of bologna was on top of the commode, where she had placed it in anticipation of preparing a sandwich to take to work. Following the spilling of the sample, Silkwood stated that she wiped off the bathroom floor with a tissue and placed the bologna back in the refrigerator. That evidence was admitted only to show Silkwood's state of mind, motivation, or intention relevant to the issue whether she intentionally removed the plutonium from the plant; it was not admitted to show the truth of the statements.

The only other evidence supporting inferences relevant to where and how Silkwood was contaminated is as follows. Except for the fact that Silkwood was in a radiation zone for an hour on November 6 before discovering contamination on her person, and Silkwood's statement

that she thought she was inadequately decontaminated on November 5, there is no evidence of where, when or how she became contaminated on November 6th. She did not work the glove boxes that day and no other contamination was observed. Apparently employees were not monitored for radiation upon arriving at work, although they were subject to self and other monitoring each time they removed their hands from glove boxes and when exiting rooms and air locks. Evidence showed Silkwood was sloppy in her safety habits, failing to monitor herself or tuck her hair into the cap she was required to wear in the laboratory.

The insoluble plutonium used to spike the urine samples was not of the same batch Silkwood was working with in the glove boxes at the time of her exposures. The material could have come, however, from a slot box in the laboratory area to which Silkwood and other Kerr-McGee employees had access. The Kerr-McGee inspection system would not detect amounts of plutonium of less than about ½ gram taken from the plant in a nonmetallic container. (The amount in Silkwood's apartment was estimated at less than .0003 gram.)

There was evidence that Kerr-McGee's supervisory employees knew Silkwood was attempting to gather evidence of Kerr-McGee's negligent and improper practices in the operation of the plant and that some disapproved of her and these activities. There was also exidence that Silkwood was unhappy with a reprimand she had received shortly before her November 5 contamination and that she wanted to embarrass Kerr-McGee.

In an obvious attempt to avoid application of the workers' compensation law, the complaint asserted that all exposures originated in Silkwood's apartment. A pretrial motion for summary judgment based upon the exclusive application of the workers' compensation law was properly denied because factual issues had not been resolved

as to how the exposure occurred. The Kerr-McGee assertion that workers' compensation applied to the personal injuries was reasserted at the conclusion of the case and in the motion for judgment n. o. v. The trial judge's refusal to grant the motions or to instruct the jury on the workers' compensation issue was based upon his view that Kerr-McGee had the burden of proving job relatedness of the contamination and that there is no presumption upon which Kerr-McGee was entitled to rely.

As the trial judge recognized, there was absolutely no evidence that someone other than Silkwood or a Kerr-McGee employee intentionally or accidentally exposed Silkwood to plutonium contamination. No intentional contamination, either by Silkwood or Kerr-McGee, was established. The judge properly refused to give a jury instruction on intentional contamination by action of a Kerr-McGee employee, for lack of credible evidence. The evidence that Kerr-McGee employees might have disliked Silkwood and her evidence-gathering activities and that plutonium could and did escape the plant is not enough to support a finding that Kerr-McGee operatives intentionally exposed Silkwood to contamination. The only plausible method by which Kerr-McGee could intentionally contaminate Silkwood would be by placing plutonium in the urinalysis kits it sent home with her; there is no evidence to support such a theory. The court gave an instruction permitting the jury to find whether Silkwood intentionally removed plutonium from the plant. The jury found she did not. We agree that sufficient evidence was presented to support the court's instruction, and that the evidence was not so strong as to require the jury to find Silkwood intentionally took the plutonium.

The trial court refused for lack of evidence to submit to the jury the issue of an accidental contamination of Silkwood. Here we disagree. Indeed, we hold that, in light of the lack of evidence of intentional contamination by Kerr-McGee operatives, Silkwood, or others, the pre-

sumptions and burdens of proof applicable to workers' compensation issues required the court to grant judgment n. o. v. holding that workers' compensation was the exclusive remedy for personal injuries suffered by Silkwood.

The Oklahoma Workers' Compensation Act, Okla. Stat. Ann. tit. 85 (West 1971 & Supp. 1980), provides that the employer shall pay compensation "for the disability or death of his employee resulting from an accidental personal injury sustained by the employee arising out of and in the course of his employment . . . ." *Id.* § 11. Section 12 of the Act provides that the liability prescribed in section 11 "shall be exclusive and in place of all other liability of the employer and any of his employees, at common law or otherwise . . . ." Section 27 clarifies the scope of coverage indicated in section 11 by creating a presumption. "In any proceeding for the enforcement of a claim for compensation under this act, it shall be presumed in the absence of substantial evidence to the contrary: 1. that the claim comes within the provisions of this act." *Id.* § 27.

No Oklahoma case addresses directly the question whether an employer as well as an employee may invoke the presumption of coverage. But the courts that have construed similar liberal construction rules have unanimously held that the same rules of coverage apply regardless of who seeks their application. *See Arnold v. Shell Oil Co.*, 419 F.2d 43 (5th Cir. 1969); *Jackson v. Southern Pac. Co.*, 285 F.Supp. 388 (D. Nev. 1968); *Freire v. Matson Nav. Co.*, 19 Cal.2d 8, 118 P.2d 809 (1941); *Wilburn v. Boeing Airplane Co.*, 188 Kan. 722, 366 P.2d 246 (1961); *Thibodaux v. Sun Oil Co.*, 40 So.2d 761 (La. App. 1949), *aff'd*, 218 La. 453, 49 So.2d 852 (1950); *Smith v. Alfred Brown Co.*, 27 Utah 2d 155, 493 P.2d 994 (1972).

There are persuasive reasons underlying these consistent holdings. As pointed out by the *Freire* decision, the

liberal construction in favor of jurisdiction is not intended merely to ensure the benefits of the act for injured employees, thus sparing them the necessity of expensive and speculative trials; it is also intended to protect the employer from excessive judgments. 118 P.2d at 810. *See Jackson v. Southern Pac. Co.*, 285 F.Supp. at 389. We believe the Oklahoma Supreme Court holdings are in accord with this principle. In one case which held that an insurer's right to subrogation was abrogated by the Workers' Compensation Act, that court stated:

> "[W]e think the Workmen's Compensation Act, in effect, was reciprocal in eliminating common-law rights, it was compensatory to both employer and employee. To the employee the act provided a summary action, it insured the workmen a living wage, when injured. As to both, it took away a jury trial. As to the employer, it created a maximum loss as well as making the amount of recovery certain."

Fox v. Dunning, 124 Okl. 228, 255 P. 582, 585-86 (1927).

Most recently, in the case of *Harter Concrete Products, Inc. v. Harris*, 592 P.2d 526 (Okl. 1979), the Oklahoma Supreme Court held that an employer could not be joined in a product liability action as a third party defendant because workers' compensation was the exclusive remedy.

> "Worker's compensation legislation was enacted to provide a substitute remedy to an employee for accidental injuries received during covered employment without the burden of his proving negligence. In exchange for this exposure the employer is protected from any other liability to the employee. To be equitable as well as effective, this protection must extend to *all* liability either directly or indirectly derived from the employee's injuries."

Id. at 528 (footnotes omitted) (emphasis in original).

Another reason given for an evenhanded application of the presumption is that the objective of doing equal justice cannot be attained absent a consistent application of the rules. *See Buhler v. Gossner*, 530 P.2d 803, 805 (Utah 1975); *Smith v. Alfred Brown Co.*, 27 Utah 2d 155, 493 P.2d 984, 995 (1972).

Against this persuasive authority, plaintiff argues that the prefatory language to section 27 compels a decision that an employer may not avail itself of the presumption in proceedings brought outside those described in the Act. This key language provides the presumption will apply "[i]n any proceeding for the enforcement of a claim for compensation under this act . . . ." Okla. Stat. Ann. tit. 85, § 27. We believe that plaintiff's construction would not only violate the aforementioned principles enumerated by other jurisdictions, but would also destroy the exclusive jurisdiction compelled by the Act. Were the presumption to be applied only when an employee brought a claim in the Workers' Compensation Court, then a certain number of borderline cases would be sustained only by operation of the presumption. If these same cases were brought at common law and were deemed not subject to the presumption, they would be found to be outside the Act. Thus, an overlapping jurisdiction would exist for a number of cases open to the election of the employee. Such a result seems to contradict the Act's clear intent, expressed in section 12, of limiting recovery to that provided in the Act for all cognizable claims. *See Arrington v. Michigan-Wisconsin Pipeline Co.*, 632 F.2d 867, 871 (10th Cir. 1980). For these reasons, we believe the Oklahoma Supreme Court would hold that the presumptions contained in section 27 are applicable regardless of who seeks to make use of them.

We agree with plaintiff that inasmuch as exclusive jurisdiction is an affirmative defense, Kerr-McGee had the burden of producing evidence sufficient to demonstrate that the injuries were covered by the Act. *See*

Oklahoma Steel Casting Co. v. Banks, 181 Okl. 503, 74 P.2d 1168 (1937). The method of proving that an injury arose out of and in the course of employment would be the same regardless of whether it is offered by the employee to prove a claim or by the employer seeking to bar an action at common law. *See Eckis v. Sea World Corp.*, 64 Cal. App.3d 1, 134 Cal. Rptr. 183 (1976). The method by which injuries occurring under somewhat mysterious circumstances are proven is outlined in *In re May*, 586 P.2d 738 (Okl. 1978). In that case, representatives of a driver of a service vehicle sought recovery for the death of the driver who was found shot to death in a rural field. His log indicated that he had completed his route. The Supreme Court of Oklahoma rejected the employer's contention that because there was no competent evidence to indicate that the death arose out of and in the course of employment, the compensation award was in error. Relying on *In re Martin*, 452 P.2d 785 (Okl. 1969) and *Nebo Oil Co. v. Wright*, 406 P.2d 266 (Okl. 1965), the court first noted that compensation law indulges a presumption that a claim for injury is within the Act absent substantial evidence to the contrary. Any reasonable doubt is to be resolved in favor of the claimant. 586 P.2d at 740. Second, the court noted that the claimant could meet his burden of producing competent evidence that the injury occurred during the course of employment by use of circumstantial evidence. The circumstantial evidence need not exclude every other possible inference, but is only required to provide a legal and logical basis for a reasonable inference as to the existence of the fact sought to be proven. *Id.* at 740-41. Once this reasonable inference of coverage is established, a prima facie case has been made out that workers' compensation is the exclusive remedy, and it is then incumbent upon the plaintiff to show the nonexclusivity of the statutory compensation remedy as to each element of the injuries for which plaintiff seeks common law relief.

Murphy v. Owens-Corning Fiberglas Corp., 447 F.Supp. 557, 571 (D. Kan. 1977).

With these rules in mind, we again review the evidence. Silkwood was a laboratory analyst at the Kerr-McGee plant and handled plutonium in the regular course of her employment. It is undisputed that on the first day of her contamination, November 5, 1974, Silkwood was found to be contaminated after spending some three hours grinding and cleaning plutonium. Silkwood had monitored herself three times during the course of the same work period and found no contamination each time. After Silkwood was found to be contaminated, the gloves in the glove box she had been using were found to be contaminated. Silkwood was decontaminated at work and given urine and fecal kits to check for plutonium discharges. This is the only evidence relating to the November 5th exposure and it supports only one inference: that the exposure was job-related.

Of the three exposures occurring on November 5th, 6th and 7th, that of November 6th is the least understood in terms of when and where it happened. On November 6th, Silkwood arrived at work at 7:50 a.m. and performed paperwork in the laboratory, which was in a radiation zone. Apparently she was not checked for contamination at the time she arrived at work, but upon leaving the laboratory at 8:50 a.m., she checked herself and discovered contamination on her hands, her right forearm, and her face and neck. Her hands were decontaminated immediately, but to permit Silkwood to attend a union meeting the fixed contamination on the rest of her body was not decontaminated until the end of the day. At most this evidence could support an inference that the November 6th exposure occurred at the job site which was known to be a place where plutonium was present. Alternatively, the evidence might support a finding that, as Silkwood stated, the contamination discovered on November 6th was residual contamination from her on-

the-job exposure of the day before. Any other inference would be far too speculative based on this record.

Upon her arrival at work the next day, November 7th, Silkwood was found to be highly contaminated. The urine sample she took that morning at her apartment was spiked and her apartment was found to be contaminated, particularly the bathroom, kitchen, and her bedroom. Her roommate was found to be contaminated on her buttocks and hands. The only reasonable explanation for the roommate's contamination is that it came from the toilet in the apartment after Silkwood had taken her urine sample and departed for work. In view of the lack of contamination of other individuals who occupied the apartment during the course of the evening of the 6th and until 6:50 a.m. on the morning of the 7th, the only reasonable inference that can be drawn from the circumstantial evidence is that the contamination of the apartment, Silkwood, and her roommate resulted from Silkwood's preparation that morning of the urine sample. It is undisputed that the urine sample was spiked, although it is not known who spiked it or from what source. Since the urine sample was prepared at the direction of her employer as a part of her job-related duties, the only inference not based on the sheerest speculation that can be drawn from the evidence is that the contamination measured on the 7th was also job-related. The only other evidence that properly can be considered leads to the same conclusion.[2]

The circumstantial evidence supports one conclusion: that Silkwood's exposure on all three occasions occurred

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[2] Silkwood told AEC investigators that she believed the contamination measured on the 7th resulted from inadequate decontamination at work the day before. If this were true, it proves only that the contamination of the 7th was job-related. Furthermore, her statement about being contaminated while preparing her urine sample on the morning of the 7th, although not admitted to prove the truth of the statement, is consistent with the only reasonable inferences that can be drawn from the balance of the evidence.

either at the job site or in preparation of urine samples for her employer. In the absence of any other evidence of offsite exposure,[3] the only reasonable inference is that all the plutonium found in her body came from her working with and around plutonium or from the preparation of job-related urine samples that were spiked. Plaintiff's own expert witness testified that no one could be sure when the exposure occurred that resulted in the deposition of plutonium in Silkwood's lungs.

While the circumstantial evidence as to the time, place, and manner of exposure is thin at best, it cannot support any conclusion other than that the exposures were job-related. Even were we to conclude that the evidence is too thin standing alone to support any conclusion, we are satisfied that, aided by the liberal construction rule favoring coverage, Kerr-McGee has established a prima facie case that the injury comes within the provisions of the workers' compensation statute. We now hold that plaintiff has not produced substantial evidence that Silkwood's injury occurred outside the course of her employment to rebut this prima facie case.

The trial court's comparison of this case to that of a factory worker engaged in the manufacture of television sets who is injured when his home television blows up is inapposite. In that case the reasonable inference is that the television is for private use, and no circumstance suggests that the explosion is related to his work rather than his ownership of the set. In the instant case, by contrast, there is a logical nexus between Silkwood's injury and her work.

Silkwood's counsel complained that Kerr-McGee's evidence was all directed to prove intentional taking by Silkwood and self-contamination. It is true that in pre-

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[3] There was evidence that a substantial amount of Kerr-McGee plutonium was missing from the job site but no evidence, circumstantial or otherwise, connects Silkwood with that material.

trial investigations and at trial Kerr-McGee employees testified to beliefs and theories that no incident at the plant had been the source of the contamination, that the contamination was self-administered, that it was unlikely to have been accidental, or that she was contaminated offsite. While Kerr-McGee attempted to establish an intentional taking of plutonium by Silkwood and intentional or accidental self-contamination thereafter, it never abandoned the alternative theory of a job-related accident. Kerr-McGee could avoid liability altogether if it could establish an intentional taking by Silkwood; it could avoid a common law tort claim for personal injuries if it could establish a job-related accidental exposure. We do not consider its witnesses' statements concerning self-contamination by Silkwood as admissions that no job-related accidental exposure was possible.

Plaintiff contends that the Workers' Compensation Court has exclusive jurisdiction only if it is shown that the worker would actually have received compensation and, since it was not shown that Silkwood's injury was presently disabling, no compensation would have been awarded. Plaintiff argues that because section 12 provides that "[t]he *liability prescribed* in the last preceding section shall be exclusive" and section 11 prescribes only liability for disability or death, all non-disabling injuries may be pursued at common law. Kerr-McGee counters with an argument there was no injury to Silkwood here at all, since she did not contract cancer during her life. This Court has recognized that a complaint based upon the possibility of contracting cancer in the future as a result of past exposure to a carcinogenic substance does not state a common law cause of action. *Bussey v. Safeway Stores, Inc.*, (10th Cir. Sept. 19, 1978). Of course, a claim for illness already suffered is cognizable. *Id.*

Here Kerr-McGee was entitled to a finding that Silkwood's contamination was on the job, as we have discussed above. If cancer is developed from a radiation ex-

posure on the job, the workers' compensation law covers it. *See* Okla. Stat. Ann. tit. 85 § 11(4) (West Supp. 1980) (with reference to Okla. Stat. Ann. tit. 85 § 3(7), (10) (West Supp. 1980)). In the instant case the radiation produced hysteria and fear in Silkwood and the need for medical treatment and examination. The Workers' Compensation Act requires reimbursement for medical attention from job-related accidents. *Id.* § 14. Silkwood missed time from work at least during testing, and she incurred medical expense, paid by Kerr-McGee. But even if she had not, work time loss and medical expense are not necessary requisites to finding an injury is exclusively covered by workers' compensation. If a worker on the job received a hammer blow to the thumb causing pain and suffering but no time loss, surely he or she could not sue the employer in a common law tort action. We believe the Oklahoma Supreme Court would hold that any accidental injury incurred on the job would be covered by the Workers' Compensation Act, and that the radiation exposure here is such a case. The fact the Act does not compensate for every aspect and degree of the injury makes no difference. In *Smith v. Baker*, 157 Okl. 155, 11 P.2d 132 (1932), a case in which a man lost his sexual organs in the course of employment, the Supreme Court of Oklahoma said, "The fact that Workmen's Compensation Act does not provide adequate relief in all cases does not authorize a civil action for recovery of damages." The Oklahoma court is in agreement with other jurisdictions that have considered this issue. *See* 2A Larson, *Workmen's Compensation* § 65.20 (1976).

We have considered plaintiffs' other contentions in regard to this issue, and find them to be without merit. We conclude the court erred in not ruling that the issue of personal injury must be determined under the Workers' Compensation Act. Our disposition on this issue eliminates the need to discuss the sufficiency of the evidence and other arguments relating to the amount of

damages for personal injury and the fairness of the trial on that aspect of the case. We do not understand Kerr-McGee to contend that the federal regulation of nuclear energy preempts application of the workers' compensation law for injuries on the job. *See* Appellants' Brief p. 56 n.*. *See also* S. Rep. No. 296, 85th Cong., 1st Sess., *reprinted in* [1957] U.S.Code Cong. & Ad.News 1803, 1819.

II. *Property Damage*

The existence here of significant damage to Silkwood's personal property in her apartment requires us to consider additional issues raised in the appeal. The Workers' Compensation Act applies only to "accidental personal injury." Okla. Stat. Ann. tit. 85, § 11 (West Supp. 1980). *See also id.* §§ 2, 3(7).

Kerr-McGee argues that the pervasive federal regulation of atomic energy precludes states from applying stricter safety standards for the handling of nuclear materials than required by AEC regulations. As applicable to the issue of its liability for actual damage to Silkwood's personal property, Kerr-McGee asserts that its substantial compliance with preemptive federal regulations is conclusive evidence of due care and precludes holding it liable under a strict liability standard.

Northern States Power Co. v. Minnesota, 447 F.2d 1143 (8th Cir. 1971), *aff'd mem.*, 405 U.S. 1035, 92 S.Ct. 1307, 31 L.Ed.2d 576 (1972), upon which Kerr-McGee places its principal reliance, declared that federal preemption precludes a state from exercising regulatory authority over the discharge of radioactive effluents from nuclear power plants in the state. *See also Train v. Colorado Public Interest Research Group*, 426 U.S. 1, 96 S.Ct. 1938, 48 L.Ed.2d 434 (1976). As *Northern States* recognizes, the determination whether the federal scheme precludes state rules is primarily a matter of the intent of Congress. Imposing a state tort law rule of strict lia-

bility for nuclear-related property damage occurring off the plant site might, in some instances, encroach upon federal regulations setting effluent or other standards. *See State Dept. of Environmental Protection v. Jersey Central Power & Light Co.*, 69 N.J. 102, 351 A.2d 337 (1976); *Van Dissel v. Jersey Central Power & Light Co.*, 152 N.J. Super. 391, 377 A.2d 1244 (1977). We do not think imposition of tort liability in the instant case, in which a quantity of plutonium has escaped the plant site and caused damage, will significantly interfere with federal regulation of Kerr-McGee's plant. Further, the AEC (now Nuclear Regulatory Commission (NRC)) does not have power, except as it is involved in the administration of the Price-Anderson Act, to order a compensatory award to a victim of a nuclear incident. *See Marshall v. Consumers Power Co.*, 65 Mich.App. 237, 237 N.W.2d 266 (1975). Clearly there is need for such a remedy. The Supreme Court and Congress have recognized that state tort law principles are applicable to some extent in off-site damage cases. In upholding the constitutionality of the Price-Anderson Act, the Supreme Court stated that "[a]ppellees' only relevant right prior to the enactment of the Price-Anderson Act was to utilize their existing common-law and state-law remedies to vindicate any particular harm visited on them from whatever sources." *Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 88 n.33, 98 S.Ct. 2620, 2638 n.33, 57 L.Ed.2d 595 (1978). The Price-Anderson Act, 71 Stat. 576 (1957) (codified in scattered sections of 42 U.S.C.), was passed to address the problem of liability for nuclear disasters which might deter the industrial development of nuclear energy. It requires AEC (NRC) licensees to purchase private insurance, creates a government indemnity fund, and establishes maximum limits to liability for an "extraordinary nuclear occurrence." 42 U.S.C. § 2210(n). For nuclear incidents below the level of an extraordinary nuclear occurrence, and the instant case is one, the rules of tort law of the state in which the injury occurred still apply.

> "[T]he bill has been drafted so that minor claims involving nuclear facilities or materials may remain subject to the traditional rules of tort law."

S. Rep. No. 1605, 89th Cong., 2d Sess., *reprinted in* [1966] U.S.Code Cong. & Ad.News 3201, 3211. *See also id.* 3203-04, 3206, 3207, 3209, 3226; S. Rep. No. 296, 85th Cong., 1st Sess., *reprinted in* [1957] U.S.Code Cong. & Ad.News 1803, 1810, 1823. Kerr-McGee argues that although state tort law applies the federal regulations determine the controlling standards, foreclosing application of strict liability. But that same Senate report recognizes that a state can apply strict liability principles if it chooses.

> "[A] claimant would have exactly the same rights that he has today under existing law--including perhaps, benefit of a rule of strict liability if applicable State law so provides."

S. Rep. No. 1605, 89th Cong., 2d Sess., *reprinted in* [1966] U.S.Code Cong. & Ad.News at 3212. *See also id.* 3203, 3206, 3207.

We have no doubt Oklahoma courts would apply strict liability to this case of escape of plutonium, a highly toxic and dangerous substance. *Young v. Darter*, 363 P.2d 829 (Okl. 1961) (herbicide spray). *See also Kirkland v. General Motors Corp.*, 521 P.2d 1353 (Okl. 1974). Nuclear energy is surely an area "in which no court will, at last, refuse to recognize and apply the principle of strict liability." W. Prosser, *The Law of Torts*, § 78, at 516 (4th ed. 1971); *see Restatement (Second) of Torts* § 520, comment (g) (1977) ("Some activities, such as the use of atomic energy, necessarily and inevitably involve major risks of harm to others, no matter how or where they are carried on.")

We have no trouble with proximate cause in the context of damage to personal property in Silkwood's apartment. It was stipulated that the plutonium came from the Kerr-

McGee plant; clearly the property damage was the result of plutonium contamination. Regarding one who carries on an abnormally dangerous activity, *Restatement (Second) of Torts* § 519, comment (e) (1977) states that strict liability applies to "harm that is within the scope of the abnormal risk that is the basis of the liability." The key is foreseeability. It is surely foreseeable and within the scope of the abnormal risk that radiation contamination will occur from contact with plutonium that escapes a nuclear fuel plant. Just as the risk incident to dynamite is accidental explosion, a risk incident to plutonium is accidental contamination. The jury's finding that Silkwood did not intentinonally carry the plutonium from the plant to her apartment eliminated the only possible intervening cause for which any eivdence was presented.

Since strict liability applies and the stipulated amount of the property damage was $5,000, claims of prejudicial publicity and other alleged trial errors would have no application to this property damage claim. While evidence excluded by the trial court concerning the state of Silkwood's health might be relevant to her personal injuries, it does not seem relevant to the jury's finding that she did not deliberately remove the plutonium from the plant. Therefore, we find no error in the judge's direction to the jury to return in its verdict $5,000 in damages for the personal property if it found no intentional taking of the plutonium by Silkwood.

III. *Punitive Damages*

Kerr-McGee makes several arguments that the award of punitive damages is improper. We need consider only one, the claim of federal preemption.

As discussed above, the Price-Anderson Act contemplates that state tort law applies in at least some cases involving nuclear incidents; we have found that a claim for compensatory damages for off-site contamination

caused by the escape of plutonium is one such situation. Nowhere in the Price-Anderson Act or its legislative history have we found express mention of punitive damages. References in the Price-Anderson Act that state law may determine tort liability may be read to permit punitive as well as compensatory damages in states like Oklahoma which permit them. However, with respect to "extraordinary nuclear occurrences" which are covered by statutory insurance, indemnity fund, and liability limitations, the Price-Anderson Act implicitly assumes that only compensatory damages will be awarded. *See also Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59, 93, 98 S.Ct. 2620, 2640, 57 L.Ed.2d 595 (1978), ("The Price-Anderson Act not only provides a reasonable, prompt, and equitable mechanism for *compensating* victims of a catastrophic nuclear incident, it also guarantees a level of net *compensation* generally exceeding that recoverable in private litigation.") (Emphasis added.)

More importantly, punitive damages are "awarded against a person to punish him for his outrageous conduct and to deter him and others like him from similar conduct in the future." *Restatement (Second) of Torts* § 908(1) (1979). *See also City of Newport v. Fact Concerts, Inc.*, 453 U.S. 247, 266, 101 S.Ct. 2748, 2759, 69 L.Ed.2d 616 (1981). Thus there is a deterrent or regulatory effect in punitive damages, which the trial judge explicitly recognized in the instant case. In jury instruction number 19 the court directed the jury that it "may give damages for the sake of example and by way of punishment," noting that punitive damages are allowed "both as a restraint upon the transgressor and as a warning and example to deter the commission of like offenses in the future." 485 F.Supp. at 603. In denying Kerr-McGee's motion for judgment n. o. v., the court mentioned the substantial evidence of poor training, poor security, and indifference to hazards. *Id.* at 591. The court's general treatment of the punitive damages issue clearly dem-

onstrates its approval on the basis that Kerr-McGee so negligently and indifferently operated the plant that punitive damages were appropriate to punish Kerr-McGee and to deter it and others from similar bad practices in the future.

The problem with awarding punitive damages in this case, however, is that *Northern States* read the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-2284, particularly section 2021, as preempting state regulation of radiation hazards resulting from atomic energy development. The Supreme Court accepted the Eighth Circuit's conclusion that "Congress intended to preempt the field of the licensing and regulation of nuclear reactors to the exclusion of the states and . . . did not intend to provide for dual regulation of radiation hazards, even as to those activities which could be turned over to the states." 447 F.2d at 1151. *Northern States* traced the history of atomic energy development in the United States from a government monopoly through the congressional decision, effectuated in the Atomic Energy Act of 1954 with its subsequent modifications and additions, to encourage private industry to participate. Specifically, the decision held that Minnesota could not impose state licensing requirements to regulate radiation emissions from nuclear power plants in that state.

Other cases have recognized the strong federal interest in atomic energy development. In *Train v. Colorado Public Interest Research Group*, 426 U.S. 1, 17, 96 S.Ct. 1938, 1945, 48 L.Ed.2d 434 (1976), the Supreme Court appears to have reaffirmed its memorandum holding in *Northern States* by ruling that the Atomic Energy Commission (now NRC) has exclusive control over the discharge of nuclear materials. In *United States v. City of New York*, 463 F.Supp. 604 (S.D.N.Y. 1978), the court found that federal preemption precluded New York City from licensing nuclear reactors in the city. Although recently the Ninth Circuit upheld California's statutes re-

quiring state approval of proposed nuclear plants and their locations within California, it recognized Congress's intent to assert exclusive federal control over radiation hazards associated with nuclear energy. *Pacific Legal Foundation v. Energy Resources Conservation and Dev. Comm'n*, Nos. 79-3365, 79-3382, 80-4265 & 80-4273 (9th Cir. Oct. 7, 1971).

Arguably there should be a strong presumption against preemption of state laws affecting such vital interests of its citizens as those involved in the instant case. However, the nuclear industry was initially developed by the federal government, is closely linked with national security, and is extensively regulated by a federal agency. This apparently is the basis upon which *Northern States* was decided. *See* Note, *A Framework of Preemption Analysis*, 88 Yale L.J. 363, 379-81 (1978). We cannot read that case and *Train* other than as requiring us to hold invalid any state action that competes substantially with the AEC (NRC) in its regulation of radiation hazards associated with plants handling nuclear material. A judicial award of exemplary damages under state law as punishment for bad practices or to deter future practices involving exposure to radiation is no less intrusive than direct legislative acts of the state. Thus we hold punitive damages may not be awarded in this case.

It does not matter whether Kerr-McGee violated AEC regulations in the conduct of its plant operations. The AEC (NRC) has comprehensive powers to punish and prohibit practices it regards as improper, through its power and responsibility to license, 42 U.S.C. § 2131, investigate, *id.* § 2271, enjoin, *id.* § 2280, and seek civil and criminal penalties. *Id.* § 2272, 2273, 2282.

We need not consider other alleged errors asserted by Kerr-McGee in its appeal. The decision is affirmed in part and reversed in part and remanded to the district court for further considerations consistent herewith.

WILLIAM E. DOYLE, Circuit Judge, dissenting.

I disagree with most, but not all, of the points which are developed in the majority opinion. I disagree also with the result reached. I have no disagreement with the affirmance of the award of $5,000 to the estate of Karen Silkwood based upon destruction of her furniture and belongings.

I

Alleged Exclusiveness of the Remedy of Workmen's Compensation

From the fact that the statute presumes in favor of the existence of a workmen's compensation remedy where an employee is injured and makes a claim, the majority opinion reaches the conclusion that this presumption is also available to the Company where the employee has not made a claim. No such suggestion is made in the statute. Authority in support of this position is either meagre or non-existent.

The first issue to be considered is whether the worker's compensation remedy is exclusive as a matter of law under the facts in the record. Kerr-McGee's position is that the evidence and the law call for liberal construction in favor of coverage and that, therefore, the exclusive remedy was that under workers' compensation. The cases say that the Act is not to be given a narrow, restricted meaning and must receive broad and liberal interpretation in order to realize its intent; reasonable doubt as to whether the injury arose out of and in the course of employment is to be resolved in favor of an injured workman. *City of Nichols Hills v. Hill*, 534 P.2d 931, 934 (Okl. 1975); *Murphy v. Owens-Corning Fiberglass Corp.*, 447 F.Supp. 557, 571 (D.Kan. 1977), *aff'd.* 78-1082 (10th Cir. July 13, 1979).

Workers' Compensation as an Issue of Fact

Alternatively, however, Kerr-McGee maintains that it was entitled to have the workers' compensation issue

submitted to the jury. The argument is that the trial court erred in refusing to instruct the jury on the subject of worker's compensation inasmuch as Oklahoma law provides for jury determination of the coverage question where the evidence is conflicting. The Oklahoma courts have held that, in a common law tort action where the worker's compensation defense is raised, the jury must be instructed on the defense unless as a matter of law only one inference can be drawn from the evidence: "where there is room for a reasonable difference of opinion as to the proper inference to be drawn from the known facts, the issue [of worker's compensation] is for the jury under proper instructions by the court." *Flick v. Crouch*, 434 P.2d 256 (Okl.1967).

Oklahoma considers the question as one of fact for the jury where a question exists as to whether the injury occurred on the job or, on the other hand, away from the job.

Analysis of the Evidence

Three incidents in which Silkwood was shown to have had plutonium contamination are established by the evidence. The resulting inferences indicate that the sources of the contaminations were both Silkwood's apartment and the Kerr-McGee laboratory. Since neither place was an exclusive source, the issue qualified as a factual dispute.

The *first* of the three incidents occurred on November 5, 1974 at 1:20 p.m. when Silkwood reported for work. At 2:45 and 3:15, before and after taking a break, Silkwood monitored herself with a plutonium detecting device provided by Kerr-McGee in accordance with the AEC requirements. No plutonium was detected on her person at that time. However, about 3:45 p.m. Silkwood began to work in two glove boxes which contained plutonium. A glove box is a supposedly impervious box surrounding

the plutonium processing equipment which has glove holes allowing the operator to work on the equipment with the plutonium from outside the box. When Silkwood monitored herself at 5:30 p.m. and 5:45 p.m., no contamination was detected. She continued to work in the glove boxes and upon withdrawing her hands from one of the boxes about 6:30 p.m. she did find contamination. Further checks were made in the laboratory and other contaminations were found, particularly inside the gloves and the glove box in which she had been working, polishing and containing plutonium. The contamination was found on Silkwood's left hand, right wrist, upper arm, neck, face, hair and in her nostrils. She was immediately decontaminated and placed on a five day voiding collection program, and was furnished with urine and fecal kits to take home for the purpose of obtaining samples which were to be sent to the United States Testing Laboratory for analysis. She monitored herself at 1:10 a.m. and found no contamination. The glove box was later tested by AEC investigators and no leaks were found. The investigators found no significant airborne contamination in the laboratory.

The *second* of the three incidents occurred on November 6, 1974. Silkwood arrived at work that day at 7:50 a.m. and did some paperwork in the lab until 8:50 a.m. At that time, she left to attend a union meeting. Before leaving she tested herself and found contamination on her hands. Tests showed fixed contamination of her right forearm, face and neck. Her hands were then decontaminated. Since the other spots appeared to be fixed contamination, she was allowed to proceed to the union meeting. She returned to the health office at 4:30 p.m., where a slight contamination was found on her right forearm, neck and face and in her nostrils. Again she was decontaminated, and at her request her locker and auto were tested and found to be free of contamination. The described second incident raises a question because

she had not been working with plutonium on the 6th of November at all. She had been restricted to paperwork in the lab prior to going to the union meeting. When she was monitored, the tests showed that she was contaminated, but she apparently had had no exposure within the plant which would have produced contamination. The logical inference is that this contamination occurred away from the plant.

The *third* incident of contamination occurred the next day, November 7th, 1974. This apparently occurred *away* from work. Silkwood went directly to the plant's health and physical office when she reported to work. There she was found to be contaminated in her nostrils and on her hands, her arms, chest, back, neck and right ear. Four urine samples and one fecal sample collected on or after November 4th were found to be contaminated, although the exterior of the kits showed no contamination. It was stipulated by the parties that urine samples brought to the plant had been spiked with plutonium; that is, they contained insoluble, non-naturally excreted plutonium. Here again the positive evidence was that the exposure occurred in her apartment.

It was after this that Silkwood's apartment was found to have been contaminated. The highest concentrations of plutonium were found in the bathroom and on a package of bologna and cheese in the refrigerator. It could be inferred that the contamination from the first incident occurred within the plant. This was the day that she was working inside the glove boxes. On the second day, however, she had been performing paperwork in the lab until 8:50 a.m., at which time she left to attend a union meeting. Before leaving she tested herself and found contamination on her hands, etc. We noted above that she had had no exposure within the plant which would have produced contamination, with the possible exception of the papers that she was working with.

The third contamination incident obviously occurred away from the plant and presumably at her home because she went directly to the physical health office when she reported for work and was found to be contaminated in her nostrils, on her hands, arms, chest, back, neck and right ear. This was the day, too, that she presented urine samples spiked with plutonium.

The majority opinion concludes that the inference to be drawn is that all of the plutonium contamination occurred at the plant. This, however, ignores the fact that there is substantial evidence showing that contamination occurred off the premises, in her apartment, and indeed this evidence jibes with the evidence that the apartment itself was substantially contaminated.

A good deal of evidence was offered which was designed to show that Kerr-McGee had a motive for intentionally exposing her to contamination. She was not popular in the plant among the loyal employees. This was due to the work that she was shown to have been engaged in, her evidence gathering activities, and her efforts to show that plutonium was escaping from the plant.

Following Silkwood's death, the autopsy revealed that the amount of plutonium within her body at the time of her death was between 25% and 50% of the permissible lifetime body burden allowed by the AEC for plutonium workers. From her body condition and from the contamination that was found in her apartment, together with the evidence of her personal contamination, the logical inference is that the contamination took place outside the plant.

Defendants' theory of the case was, of course, that all of the contamination originated on the premises of the company. On the other hand, the plaintiff's theory of the case was that all exposure originated in Silkwood's apartment. The evidence is susceptible to either conclusion.

In the face of such conflicting evidence, the question should go to the jury (as Kerr-McGee has requested alternatively). It was error for the majority to ignore the disputed facts and to hold that all the inferences favored the conclusion that contamination had been suffered on the premises of Kerr-McGee. Submission to a jury of twelve would have been the fair and conclusive way to solve this conflict.

II

Allowance of Property Damages

In allowing the award of property damages to the plaintiffs, the majority distinguishes between *personal injury*, which it holds to be subject to workers' compensation, and property damage, which is not so recoverable. Kerr-McGee argues, however, that its substantial compliance with preemptive federal regulations is conclusive evidence of due care and precludes recovery under a strict liability standard applicable to a private civil action. The fact that the federal government did not find fault on Kerr-McGee's part does not provide full and pervasive immunity.

The $5,000 *property damage* award, is not regarded by the majority as a remedy which would significantly interfere with federal regulations of Kerr-McGee's plant. I agree.

Furthermore, the majority says that the AEC has not been authorized to provide a compensatory award for property or other losses to a victim of a nuclear injury unless the injury falls within the Price-Anderson Act, which is intended to compensate victims of a widespread nuclear catastrophe. In further discussion, the majority notes that the Supreme Court, and Congress also, have recognized that state tort law principles continue to be applicable to some extent in off-site damage cases. In *Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 98 S.Ct. 2620, 57 L.Ed.2d 595 (1978),

the Supreme Court noted that the right to utilize common-law remedies "*at least with regard to nuclear accidents* was replaced by the compensation mechanism of the statute." 438 U.S. at 88, n. 33, 98 S.Ct. at 2638 n. 33. This statement clearly implies that such remedies remain intact in cases which do not involve a nuclear accident.

In enacting the Price-Anderson Act, 71 Stat. 576 (1957), 42 U.S.C., Congress sought to address the problem likely to result from nuclear *disasters* which might deter the industrial development of nuclear energy. The Act requires nuclear energy companies to take out insurance in order to protect against these extraordinary nuclear occurrences. In respect to nuclear incidents below the level of the extraordinary cases, i.e., cases like the present controversy which is conceded to be a lesser incident, private tort actions arising under state common law are to be used. Indeed, the congressional commentary expresses this interest.

The majority also concedes that strict liability is a theory which is to be pursued in this area, and that Oklahoma would apply strict liability to the escape of plutonium, a highly toxic and dangerous substance. *Young v. Darter*, 363 P.2d 829 (Okl. 1961) (herbicide spray); *Kirkland v. General Motors Corp.*, 521 P.2d 1353 (Okl. 1974). Thus, the majority recognizes that nuclear energy is an area in which no court is likely to refuse to recognize the applicability of strict liability. Restatement of Torts, Second, § 520, Comment g (1977). The very essence of liability without fault is, of course, the carrying on of ultrahazardous activity, that which exposes to an abnormal risk. In conducting this kind of activity, it is foreseeable that serious injury will occur irrespective of fault. The risk is of such great magnitude that the activity is ultrahazardous, such that the person carrying on the activity is liable regardless of fault.

This then was the rationale of the majority for affirming the award of $5,000 property damages. As noted at the outset, we do not dispute this conclusion.

The jury also found that Silkwood did not intentionally or wilfully remove plutonium from the plant. All of the plutonium was conceded to have originated on the Kerr-McGee premises.

III

Does the Atomic Energy Act of 1954 Impliedly Preempt That Part of the State Remedy Which Authorizes Punitive Damages?

It is recognized in the majority opinion that nowhere in the Price-Anderson Act is there any mention of punitive damages. It is admitted, however, that mention in the Price-Anderson Act that state law may determine tort liability is susceptible to being read to permit punitive as well as compensatory damages in states like Oklahoma which permit them. The opinion considers important the fact that with regard to extraordinary nuclear occurrences (governed by Price-Anderson), provision is made for compensatory damages only. But we are not here dealing with that kind of a catastrophe nor with the Price-Anderson Act. Hence, the silence of the Price-Anderson Act is not probative. The question here is whether the Atomic Energy Act, 42 U.S.C. § 2011, *et seq.*, as construed in *Northern States Power Co. v. Minnesota*, 447 F.2d 1143 (8th Cir. 1971), *aff'd Mem.*, 405 U.S. 1035, 92 S.Ct. 1307, 31 L.Ed.2d 576 (1972), impliedly preempts part of the Oklahoma common law remedy.

The state was precluded as a result of the decision in *Northern States Power Co.* from undertaking the scheme of regulation of atomic energy which was then being carried out by the N.R.C. pursuant to the Atomic Energy Act. It is one thing to preempt the area which the federal government has undertaken to license and regulate; it is another for a court to read into the Act an intent to preempt a form of damages which would otherwise be a part of an isolated private lawsuit. This conclusion is particularly apt where no evidence exists either on the face of the Act or otherwise of an implied purpose to so

preempt by the Congress.[1] Indeed, the fact that private lawsuits are tolerated without any limitations argues against the majority position.

The general approach to preemption of state authority is shown in Constitutional Law Cases and Materials by Professor Gerald Gunther (9th ed. 1975). Professor Gunther states:

> When Congress exercises a granted power the federal legislation may displace state law under the supremacy clause of Article VI. *But Congress does not typically act on a wholesale basis, and congressional entry into a field does not necessarily end all state authority.* (emphasis added). *Id.* at 357.

What the author is saying is that preemption is not readily implied. Hart and Wechsler, The Federal Courts and the Federal System, 2nd ed. (1973) is cited as being in accord with this position. The authors state at pp. 470-471:

> Federal law is generally interstitial in nature. It rarely occupies a legal field completely * * *. Federal legislation, on the whole, has been conceived and drafted on an *ad hoc* basis to accomplish limited objectives. It builds upon legal relationships established by the states, altering or supplanting them only so far as necessary for the special purpose. Congress acts, in short, against the background of the total *corpus juris* of the states in much the way that a state legislature acts against the background of the common law, assumed to govern unless changed by legislation.

Professor Gunther points out that the problem is one of statutory interpretation. He further states that:

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[1] The fact that Congress has expressly excepted the private tort action without restriction argues against any implied intent to preempt a part of such action.

> [S]tate regulation falls not because of the commerce clause but because, under the supremacy clause of Art. VI, the "supreme" congressional law supersedes state law. Constitutional Law at 357.

He goes on to say that:

> [P]reemption occurs not only when there is an outright conflict between the federal scheme and the state requirement. State authority is barred as well when congressional action is an *implicit* barrier: when state regulation would interfere unduly with the accomplishment of congressional objectives. Determination of congressional requirements and purposes must start of course with the congressional statute itself, and the cases accordingly require a particularized examination of the specific regulatory scheme. *Id.*

In this case, unlike the other preemption cases, there are no competing regulatory schemes.

There is a shortage of case authority which even considers the issue as to whether a civil action or some phase of it (as in this case) is subject to preemption under Article VI of the Constitution. Our search has uncovered a few decisions which have involved state suits. None of these have accepted preemption as being the dispositive formula.[2]

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[2] *Bramer v. United States*, 595 F.2d 1141 (9th Cir. 1979), a tort claims action by a serviceman for a radiation related injury. The Ninth Circuit found that preemption was not an issue except where Congress had expressly or impliedly provided for the supremacy of federal law. *Id.* at 1144, n. 7.

Rogers v. Ray Gardner Flying Service, Inc., 435 F.2d 1389 (5th Cir. 1970), *cert. denied*, 401 U.S. 1010, 91 S.Ct. 1255, 28 L.Ed.2d 546 (1971), was a wrongful death action arising out of a private airplane crash in Oklahoma. The Fifth Circuit ruled that a Federal Aviation Act agency provision did not preempt an Oklahoma bailment law. Congress held not to have expressly

The Eighth Circuit's opinion in *Northern States Power Co.* (affirmed by the Supreme Court) is a very sound opinion. By showing how the doctrine of preemption operates, it provides a contrast to this case and shows the inadequacy of the preemption showing here.

The Supreme Court's decision in *Florida Lime and Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 83 S.Ct. 1210, 10 L.Ed.2d 248 (1963) has some relevance in that it shows reluctance to exercise preemption. There a California statute

> barred avocados which did not meet the state's minimum oil content standard of maturity. Federal

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preempted the field; tort law said to have been historically left to the states. *Id.* at 1393-94. Oklahoma law found to preclude liability (on other grounds).

In *Smith v. Cessna Aircraft Corp.*, 428 F.Supp. 1285 (N.D. Ill. 1977), no preemption by federal law of state law in a plane crash case. Illinois had held that federal contribution laws preempted state law in a major aircrash case because of "the predominant, indeed almost exclusive, interest of the federal government in regulating affairs of the nation's airways." The court recognized that there was considerable congressional "opposition to interference with traditional state tort law." 428 F.Supp. at 1287. It was concluded that the case presented no necessity for preemption by federal law.

Southern Pacific Transportation Co. v. United States, 462 F.Supp. 1193 (E.D. Cal. 1978), a railroad suit against the United States for damages caused by a shipment of bombs. The railroad urged that state law was preempted because of federal regulations pertaining to the shipment of bulked goods on railroads. Held: no preemption, since many ICC regulations cited by the railroad had little or nothing to do with the accident. 462 F.Supp. 1223-27.

Harper and Row Publishers, Inc. v. Nation Enterprises, 501 F.Supp. 848 (S.D.N.Y. 1980) was a copyright action. The court found there that the plaintiff's state law claims were preempted by the federal Copyright Act. The case is noteworthy because it emphasizes the importance of a specific express declaration of preemption by Congress.

> marketing orders issued pursuant to the Agricultural Adjustment Act gauged the maturity of Florida avocados by standards other than oil content.

Thus, the state was seeking to regulate the same subject matter which federal regulations addressed in seeking to solve the same problem. Notwithstanding the conflict the Supreme Court held:

> that the supremacy clause did not prohibit California from excluding Florida avocados certified as mature under the federal regulations but which contained less than the minimum California oil content.

The majority opinion concluded that there was not an actual conflict between the two schemes of regulation and that both could live, one with the other. It was said in that case that there was no evidence of a congressional design to preempt the field; that there was no physical impossibility in complying with both standards. The maturity of avocados seemed to be an inherently unlikely candidate for exclusive federal regulation; the federal regulation there in issue which set minimum standards for agricultural commodities, even though comprehensive, did not in and of itself show implied displacement of state control over distribution and sale of those commodities in the interest of the consumers of the commodities within the state. The opinion finally said that the Court was unable to find an unambiguous congressional mandate to exclude state regulation. The federal law involved concerned minimum rather than uniform standards. The statutory scheme was one of regulating maturity, and was drafted and administered locally by the growers' own representatives and was designed to do more than promote orderly competition among the South Florida growers. The dissenting opinion saw the federal scheme as a comprehensive regulatory program and the California scheme as identical in structure to the federal one. They said that the question was purely an economic one.

Why is the *Florida Lime and Avocado Growers* case helpful here? It shows the Supreme Court's tendency to refrain from declaring implied preemption whereby a state law is displaced by a federal one.

All of the decided cases tend to reveal the inherent weakness on the preemption question of the majority position. A holding that preemption is present here is a gross infringement of state prerogatives as well as the rights of individual citizens.

* * * *

In the case before us, neither express preemption nor implied preemption is appropriate. Nor does the fact situation as a whole suggest applicability of the preemption doctrine. The simple reason is that it is not needed and would be superfluous.

IV

The Lack of Authoritative Cases in Support of Preemption as Here Presented

The majority seeks to support its preemption of punitive damages position with the decision in *Northern States Power Co. v. Minnesota*, 447 F.2d 1143 (8th Cir.), *aff'd mem.* 405 U.S. 1035, 92 S.Ct. 1307, 31 L.Ed.2d 576 (1972). It also cites *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1, 96 S.Ct. 1938, 48 L.Ed.2d 434 (1976), but does not emphasize that case. The majority opinion states that: "Imposing a state tort law rule of strict liability for nuclear-related property damage * * * might in some instances encroach upon federal regulations setting effluent or other standards." Thus, it "might" encroach in some instances.

The above does not say that it *does* encroach. It merely speaks of possible encroachment; the majority does not say that encroachment is present. The majority concludes that imposition of tort liability in this case will

significantly interfere with federal regulation. This latter conclusion suggests that preemption is to be decided on a case to case basis. Clearly it is not. The federal government has either preempted or it has not.

So far the majority is speaking of tort liability. It now turns to exemplary damages.

From the *Northern States* holding that the field of licensing and regulation has been preempted, it is contended that exemplary damages, due to their punishment aspect, cannot be awarded. But a tort action is a far cry from a regulatory system. The fact that Minnesota is precluded from this governmental activity falls short of dictating that exemplary damages have to be barred.

If a tort action does not interfere, the award of exemplary damages cannot impede federal government regulation. After all, the award of a large amount of actual damages can be equally punishing. It is the money which causes the suffering, not the designation.

The Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-2284, preempts the field of nuclear licensing and regulation. But until now, no effort has been made to abolish damages in a private civil action. No collision exists nor is one possible between the simple state law inspired tort action and the federal government. To say that preemption prevents the imposition of exemplary damages in connection with a civil judgment carries the preemption concept far beyond anything that could have been intended or could ever be implied. The decision in the *Northern States* case was, as conceded by the majority, that Minnesota could not impose state licensing and regulation on Minnesota power plants in the face of a similar federal regulation scheme. This is unquestioned preemption.

Also in *Northern States*, it was made clear from a study of the congressional history that the intent of the

Act was to preempt regulatory licensing authority. It was the licensing and regulation of more dangerous activities which was preempted by the federal government. The Joint Report of the Congress declared that it was intended to leave no room for the exercise of dual or current jurisdiction by states to control radiation hazards by regulating by-product source or special nuclear materials. 447 F.2d at 1151.

> The intent is to have the material regulated and licensed either by the Commission, or by the state and local governments, but not by both. The bill is intended to encourage states to increase their knowledge and capacities and to enter into agreements to assume regulatory responsibilities over such materials.

Thus, it was special hazards which the federal government retained for its responsibility. These included the construction and operation of production utilization facilities, including reactors. It was pointed out that:

> Subsection k provides that nothing in the new section 274 shall be construed to affect the authority of any state or local agency to regulate activities for purposes other than protection against radiation hazards. This subsection is intended to make it clear that the bill does not impair the state authority to regulate activities of AEC licensees for the manifold health, safety and economic purposes other than radiation protection. As indicated elsewhere, the Commission has exclusive authority to regulate for protection against radiation hazards until such time as the state enters into an agreement with the Commission to assume such responsibility.

The analysis by the *Northern* court brings out the concern of the Congress as to possible dual federal-state control, a concern which could not exist here.

* * * *

In closing, I have some views regarding the large *amount* of the exemplary damages awarded by the jury. However, there is no need to consider this problem here at this time since the amount of reduction is not an issue. At the present writing, at least, the cause appears to be a lost one.

Finally, it is helpful to review some of the governing criteria. These are summarized by the Supreme Court in *Hines v. Davidowitz*, 312 U.S. 52, 61 S.Ct. 399, 85 L.Ed. 581 (1941). The state-law there at issue required that certain aliens register as such and carry a card. The Supreme Court held that the subject of registration of aliens, because of its national and international nature, was preempted by the national government and that the power of the state was not concurrent.

The Court said in speaking of a formula:

> There is not—and from the very nature of the problem there cannot be—any rigid formula or rule which can be used as a universal pattern to determine the meaning and purpose of every act of Congress. This court * * * has made use of the following expressions: conflicting; contrary to; occupying the field; repugnance; difference; irreconcilability; inconsistency; violation; curtailment; and interference. * * * In the final analysis, there can be no one crystal clear distinctly marked formula. Our primary function is to determine whether, under the circumstances * * * Pennsylvania's law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. Id. at 67, 61 S.Ct. at 404.

Applying the Supreme Court's test in *Hines*, the conclusion would certainly be that preemption does not apply in this case, nor do any of the other suggested expressions of Justice Black apply to our problem.

We conclude that there is no justification whatsoever based on precedent, history, policy or reason which justifies a holding that preemption applies to the present problem.

APPENDIX D

UNITED STATES DISTRICT COURT
W. D. OKLAHOMA

Civ. A. No. 76-0888-Theis

BILL M. SILKWOOD, ADMINISTRATOR OF THE ESTATE OF KAREN G. SILKWOOD, DECEASED,
Plaintiff,

v.

KERR-MCGEE CORPORATION *et al.*,
Defendants.

Aug. 18, 1979

OPINION AND ORDER OVERRULING DEFENDANTS' POST-TRIAL MOTIONS

THEIS, Chief Judge.

This is a personal injury action for damages caused through exposure to radiation suffered by plaintiff's decedent as a consequence of plutonium escaping a nuclear fuel processing plant operated by defendants. A lengthy jury trial culminated May 18, 1979, in a jury's answers to interrogatories finding actual damages of $505,000.00 and punitive damages of $10,000,000.00. The jury's answers also indicated liability of both defendants on strict liability and also on the basis of defendants' negligence. The Court accepted the verdict and on June 21, 1979, entered judgment in accordance therewith.

This matter now comes before the Court on defendants' alternative motions for judgment notwithstanding the verdict or for a new trial. Twenty-two separate grounds are alleged to support these motions. For the reasons stated herein, the Court finds these motions without merit and denies defendants their requested relief.

From the date this lawsuit was filed a dramatic divergence of perspective has existed regarding what the issues in this case are, how those issues arise in this suit, and the applicable legal standards that control their resolution. This manifest, often emotionally-charged disagreement has survived the pretrial and trial stages of the litigation, causing numerous heated objections over otherwise elementary rulings on discovery questions, admission of evidence, content of jury instructions, and the propriety of any determination of defendants' liability for damages, especially in the instant amounts. This disagreement has once again made itself apparent in the post-trial motions of defendants.

Because defendants' misconception of the legal issues presented in this case permeates many aspects of the post-trial motions before the Court, the Court must make certain prefatory remarks, even though this litigation is in its most advanced stages. These remarks may put in better perspective the true import of this Court's many evidentiary rulings and the instructions given the jury, and may help illuminate several aspects of defendants' arguments otherwise not readily apparent. It is of singular importance for this Court to emphasize clearly what defendants argue and the legal theories upon which these arguments are premised.

From the outset of this litigation, defendants' perception of the basis upon which this lawsuit was brought has differed from the narrow issues presented in the pleadings. This was a personal injury action for damages caused through escape of plutonium from defend-

ants' facility. This was not an intentional tort case. In defendants' strenuous and lucid arguments on these motions, counsel repeatedly stated that the trial of this action utterly failed to address "what this case was supposed to be all about"—to establish how plutonium came to be in Karen Silkwood's apartment. This Court simply does not agree.

In this case plaintiff sought to establish that culpable conduct of defendants permitted plutonium to escape from the Cimarron nuclear fuel reprocessing facility operated by defendants, and that this plutonium caused injury to Silkwood. How plutonium, once outside the plant, came into Silkwood's apartment is an issue quite distinct from how it escaped the facility.

Implicit in virtually all defendants' arguments in these motions is the suggestion that plaintiff ought not to recover unless he can demonstrate that an agent of Kerr-McGee actually deposited plutonium in Silkwood's apartment. The Court is well aware of the public speculation that has surrounded the facts of this case and the various theories of covert conspiracies advanced to explain intentional conduct that brought plutonium into Silkwood's apartment. Neither public speculation nor charges of conspiracy or intentional contamination, however, formed any part of plaintiff's claim in this trial. The sole issue before this jury was whether defendants were responsible or liable for the plutonium's escape and whether Silkwood was injured as a result of that escape. This Court ruled that defendants would be held strictly liable for any injury caused through escape of defendants' plutonium, unless, of course, defendants prevailed on their defense of assumption of the risk.

Defendants' resistance to this analysis of the case is predicated upon their contention that no liability may attach solely for the escape of plutonium from their facility and for injury caused thereby. This freedom from

responsibility for negligent or non-negligent acts that permit plutonium to escape into the public domain is premised upon the purported import of the appropriate federal regulations governing the facility's operation. Defendants also premise this argument upon a narrow theory of proximate causation, under which no liability exists unless a party caused the plutonium's movement physically into Silkwood's apartment.

Defendants have here claimed that they have no common law duty to contain plutonium within the walls of their facility and thus cannot be held liable merely for permitting plutonium to escape. Defendants contend that Congress has occupied the field of nuclear regulation through its legislation in the area. Unless defendants' conduct violates appropriate federal standards, or unless defendants may be held liable under federal law, they may not be held accountable in this Court. Imposition of liability on state common law principles represents the imposition of state standards where the federal government has not deemed them necessary. Federal preemption allegedly bars application of state law liability principles. Thus, defendants claim immunity from liability for any conduct for which the federal government does not impose liability.

Alternatively, defendants argue that they are subject to strict liability on state common law grounds only where they have failed to comply with federal regulations or with their AEC license requirements. Thus, if defendants have complied with all federal regulations, they cannot be held liable for any damages caused by the operation of their facility. Plaintiff has the burden of proving defendants' license noncompliance and in cases where no specific act or regulatory violation can be affirmatively established as the cause of injury, liability would not attach, unless the doctrine of res ipsa loquitur were applicable. This argument, of course, would essentially render nugatory the application of strict liability principles.

Both arguments presume much about the nature of the federal regulation of nuclear facilities. The primary issue in this case is whether defendants may be held liable for the escape of plutonium into the public domain on state strict liability grounds or on ordinary principles of negligence. Although defendants contend that they may not be legally held accountable under state law for the instant damages, defendants have failed to note any federal law which creates a private cause of action for violations of federal regulations. Defendants do not address any statutory or regulatory provisions, or the history to the federal legislation, to support their view.

Indeed, even cursory analysis of federal law clearly establishes that Congress specifically intended that state common law principles control nuclear accident litigation. Common law duties to act with all due care exist both in the absence of specific regulatory provisions and in conjunction with the federal guidelines for operation of nuclear facilities. It is also abundantly clear that Congress specifically intended that states apply strict liability principles, if available under state law, to liability determinations. Defendants' theory of preemption is simply unsupported by law.

APPLICABILITY OF STATE COMMON LAW STRICT LIABILITY PRINCIPLES

Defendants argue in their brief and oral argument three or four basic propositions regarding federal preemption and the role of federal regulations. First, federal preemption allegedly prohibits imposition of liability except in accordance with federal law. Thus, strict liability may not be imposed unless federal law—the Price-Anderson Act—requires it. Defendants have orally argued and suggested in their brief that no liability may attach at all unless defendants have failed to comply with federal law and regulations that control their conduct. Secondly, defendants maintain that they cannot be held liable for any

damages whenever a plaintiff's exposure is within the maximum permissible exposure limits set by the Atomic Energy Commission ("AEC") or the Nuclear Regulatory Commission ("NRC"). Third, defendants contend that substantial compliance with federal regulations bars any award of punitive damages and that the Court erred by failing to so instruct. These arguments all rest on the significance and effect of the federal Atomic Energy Act of 1954, the Price-Anderson Act, and the regulations issued pursuant thereto. A brief background is warranted.

The federal government originally reserved to itself an absolute monopoly on the development of atomic power in the Atomic Energy Act of 1946. Act of August 1, 1946, ch. 724, § 2, 60 Stat. 755. A movement developed, however, to permit private enterprise to enter the technological field. These efforts culminated in the enactment of the Atomic Energy Act of 1954, which abolished the governmental monopoly over nuclear technology and allowed private operation of nuclear reactors under strict AEC supervision. Act of August 30, 1954, ch. 1073, 68 Stat. 919, as amended, 42 U.S.C. §§ 2011-2281 (1970).

The concern over cost-disincentives to investment, particularly the availability and cost of liability insurance to cover major nuclear accidents, led to legislation in 1956 that provided for governmental indemnification against loss incurred through a nuclear accident. This bill was ultimately enacted in 1957 as the Price-Anderson Act. Act of September 2, 1957, Pub.L.No. 85-256, 71 Stat. 576, *codified at* 42 U.S.C. § 2210 (1970); *Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 98 S.Ct. 2620, 2625-26, 57 L.Ed.2d 595 (1978); see generally, Note, *The "Extraordinary Nuclear Occurrence" Threshold and Uncompensated Injury Under The Price-Anderson Act*, 6 Rutgers-Cam.L.J. 360, 362-64 (1974). Originally effective for only ten years, the Price-Anderson Act has since been twice extended and is now effective

until 1987. Act of October 13, 1966, Pub.L.No. 89-645, 80 Stat. 891; Act of December 31, 1975, Pub.L.No. 94-197, § 4, 89 Stat. 1111.

Defendants contend that this federal legislation has occupied the field and prohibits imposition of liability except where federal law expressly so provides. Defendants have further orally argued that Congress never intended that state rules of strict liability be applied to actions for personal injury arising out of federally licensed nuclear facility operations. These statements are so palpably contrary to the legislative history of these acts that they hardly warrant serious argument.

Prior to the enactment of the Price-Anderson Act in 1957, Congress intended that *all* questions of liability for radiation injuries be submitted for determination under state tort law. The Supreme Court stated in *Duke Power Co. v. Carolina Environmemtal Study Group, Inc.*, supra, 98 S.Ct. at 2639, n. 33:

> "Appellees' only relevant right prior to the enactment of the Price-Anderson Act was to utilize their existing common-law and state-law remedies to vindicate any particular harm visited on them from whatever sources."

Chairman Anderson of the Joint Committee on Atomic Energy spoke during the 1975 hearings on the need for renewal of the Price-Anderson provisions. He stated that without Price-Anderson's requirement that state common law defenses to liability be waived,

> "[e]stablishing liability would depend in each case on state tort law and procedures, and these might or might not provide for no-fault liability."

Hearings on H.R. 8631 before the Joint Comm. on Atomic Energy, 94th Cong., 1st Sess., 69 (1975), *quoted in Duke Power Co., supra*, 98 S.Ct. at 2639.

The congressional reports issued in conjunction with the Price-Anderson Act stated that whether or not liability existed in any case was to be determined according to the applicable state law. S.Rep. No. 296, 85th Cong., 1st Sess., 9, *reprinted in* [1957] U.S.Code Cong. & Admin. News at 1803, 1810; H.R. Rep. No. 435, 85th Cong., 1st Sess., 9 (1957). When Congress passed the first extension of Price-Anderson in 1966, it similarly indicated that state law would control liability determinations. S.Rep. No. 1605, 89th Cong., 2d Sess., 3-4, 6-10, *reprinted in* [1966] U.S.Code Cong. & Admin.News at 3201, 3206-10. The AEC also agrees that liability determinations under Price-Anderson are made under applicable state law. *AEC Staff Study of the Price-Anderson Act: Part I*, 16 Atomic En.L.J. 205, 224 (1974).

Numerous commentators have unanimously concluded that Price-Anderson left the issue of liability determinations to state law. Comment, *Radiation and Preconception Injuries: Some Interesting Problems in Tort Law*, 28 S.W.L.J. 414, 427 (1974); Note, *The "Extraordinary Nuclear Occurrence" Threshold and Uncompensated Injury Under the Price-Anderson Act*, supra, at 364; Green, *Nuclear Power: Risk, Liability and Indemnity*, 71 Mich. L.Rev. 479, 496 (1973); England, *Nuclear Insurance and the Price-Anderson Act*, 13 Atomic En.L.J. 27, 33 (1971); Green, *Safety Determinations in Nuclear Power Licensing: A Critical View*, 42 Notre D.L. 633, 646 (1968); Cavers, *Improving Financial Protection of the Public Against the Hazards of Nuclear Power*, 77 Harv. L.Rev. 644, 648, 650 (1964); Estep and Adelman, *State Control of Radiation Hazards: An Intergovernmental Relations Problem*, 60 Mich.L.Rev. 41, 42 (1961); Comment, *Nuclear Liability Legislation in the United States and Europe*, 13 Stan.L.Rev. 865, 866 (1961); Note, *Recent Statutes*, 71 Harv.L.Rev. 750, 752 (1958).

Nor did the Price-Anderson Act mean to supplant the application of state tort liability to a nuclear accident of

lesser magnitude which fails to qualify as an "extraordinary nuclear occurrence" within the terms of the Act. Recovery for a nuclear accident not covered by the Act was contemplated by Congress solely according to applicable state law, without the benefit of the Act's provision for waiver of state defenses. S.Rep. No. 1605, 89th Cong., 2d Sess., 6-10, *reprinted in* [1966] U.S.Code Cong. & Admin.News at 3206-08; see also Comment, *The Irradiated Plaintiff: Tort Recovery Outside Price-Anderson*, 6 Environ.L. 859, 861 (1976); Note, *The "Extraordinary Nuclear Occurrence" Threshold and Uncompensated Injury under the Price-Anderson Act*, supra, at 367 (1974).

In enacting Price-Anderson, Congress considered and rejected the adoption of a federal tort statute based on absolute liability for nuclear power. *Duke Power Co.*, supra, 98 S.Ct. at 2627; Comment, *Radiation and Preconception Injuries: Some Interesting Problems in Tort Law*, supra, at 427. Congress provided instead that in the event of a major nuclear accident, federal law would establish a waiver of defenses to state common law claims for damages. This approach was deemed preferable both for the sake of simplicity and to avoid complicated problems of tort law. Thus, Price-Anderson sought to deal only with certain problems in existing state law that impair the ability of radiation-injured plaintiffs to recover on state law. Price-Anderson "[left] undisturbed the remaining body of the law." S.Rep. No. 1605, 89th Cong., 2d Sess., 10, *reprinted in* [1966] U.S.Code Cong. & Admin.News. at 3210.

Indeed, defendants impliedly concede that the federal government has not preempted from nuclear accident cases the applicability of state law liability principles. Although defendants fail to address the apparent disparity, they have vigorously argued that *state* workmen's compensation principles must control recovery in this case. Defendants contend that the instant facts fall within

that state statute's provisions for determination of liability and damages, and that state law must therefore be applied.

This Court agrees that if the facts warrant it, state workmen's compensation law applies. S.Rep. No. 296, 85th Cong., 1st Sess., 18, *reprinted in* [1957] U.S.Code Cong. & Admin.News at 1819; see also, Hutton, *Workmen's Compensation and Radiation Injury*, 12 Vand.L. Rev. 145 (1958); Finks, *Radiation Injuries Compensable Under Workmen's Compensation*, 41 B.U.L.Rev. 183 (1961); Estep and Allen, *Radiation Injuries and Time Limitations in Workmen's Compensation Cases*, 62 Mich. L.Rev. 259 (1963). Defendants argue further, however, that when a claim does not fit within state compensation law, it may not be brought on another appropriate state law ground—whether strict liability or negligence—because federal law has occupied the field and foreclosed the application of state law. This argument is curiously inconsistent, unexplained and not distinguished.

Defendants further contend that application of state common law strict liability principles to determine the question of their instant liability conflicts with the Price-Anderson Act and with the general purposes of the federal energy programs. Lest there be any confusion on this point, the Court must note that both Houses of Congress expressly *preferred* that state strict liability principles be used to resolve liability determination in such cases. In its report on the first amendment and extension of the Price-Anderson Act, the Senate stated:

> "The question whether courts should apply legal principles akin to those of strict liability in the event of a serious nuclear incident seems to the committee to be free from dispute. The existing Price-Anderson system rests on the assumption that such principles will be so applied. All who have testified before the Joint Committee during the past 2 years have agreed that such principles should apply in such a case."

S.Rep. No. 1605, 89th Cong., 2d Sess., 9, *reprinted in* [1966] U.S.Code Cong. & Admin.News at 3209; see also S.Rep. No. 296, 85th Cong., 1st Sess., 9, *reprinted in* [1957] U.S.Code Cong. & Admin.News at 1810.

Indeed, the Price-Anderson Act was enacted largely because of Congressional concern that certain states might *not* be willing to apply strict liability principles to claims arising from nuclear incidents. By adopting the waiver provisions of Price-Anderson, Congress therefore directed that the equivalent of strict liability principles must be applied, at least in major nuclear accidents within the definition of "extraordinary nuclear occurrences" covered by the Act. See *Duke Power Co.*, supra, 98 S.Ct. at 2627, citing S.Rep. No. 1605, 89th Cong., 2d Sess., 6-10, *reprinted in* [1966] U.S. Code Cong. & Admin.News at 3201; Proposed Amendments to the Price-Anderson Act relating to Waiver of Defenses, *Hearings Before the Joint Comm. on Atomic Energy*, 89th Cong., 2d Sess., 5 (1966); *AEC Staff Study of the Price-Anderson Act: Part I*, 16 Atomic En.L.J. 205, 224 (1974).

It should come as no surprise that authorities commenting on the subject have concluded with virtual unanimity that strict liability would be applied to actions seeking recovery for radiation injuries caused by the operation of a nuclear facility. These authorities include the first major treatise written on the topic, a work cited and relied upon by defendants to support their own contention that federal legislation occupies the field and precludes imposition of "stricter standards" than those applied by the federal government. Stason, Estep, and Pierce, *Atoms and the Law*, at 637 (1959) ("it would seem that certain aspects of that [nuclear] industry will in all probability become subject to [strict liability's] financial burden").

Indeed, these authors hypothesized a situation where special nuclear materials escape from a nuclear fuel re-

processing plant without a chain reaction incident—a factual situation remarkably similar to the instant case. The authors suggested that case law in 1959 was inconclusive, but they speculated that because the incident involved nuclear material, a court might well impose the rule of strict liability. Id. at 702.

From the first year of private involvement in nuclear power to the present time, commentators have similarly concluded that the application of strict liability to these facts is both justified and to be anticipated. Becker and Huard, *Tort Liability and the Atomic Energy Industry*, 44 Geo.L.Rev. 58, 68 (1955) ("Quite conclusively, under one guise or another, liability without fault for injuries caused by the escape of radiation will be imposed on the owner or operator of a nuclear reactor"); Cable and Early, *Torts and the Atom: The Problem of Insurance*, 45 Ky.L.J. 3, 20, 28 (1956) (generally assumed that strict liability will apply); Freedman, *Nuisance, Ultrahazardous Activities and the Atomic Reactor*, 30 Temp. L.Q. 77 (1957); Frampton, *Radiation Exposure—the Need for a National Policy*, 10 Stan.L.Rev. 7 (1957); Stason, *Tort Liability for Radiation Injuries*, 12 Vand. L.Rev. 93 (1958); Seavey, *Torts and Atoms*, 46 Cal.L. Rev. 3, 8 (1958); Comment, *Nuclear Liability Legislation in the United States and Europe*, 13 Stan.L.Rev. 865, 866 (1961) (little doubt that operator will be held strictly liable); Cavers, *Improving Financial Protection of the Public Against the Hazards of Nuclear Power*, 77 Harv.L.Rev. 644, 653, 664 (1964); England, *Nuclear Insurance and the Price-Anderson Act*, 13 Atomic En. L.J. 27, 33 (1971) (Congressional proponents found it difficult to imagine strict liability would not be applied); Note, *The "Extraordinary Nuclear Occurrence" Threshold and Uncompensated Injury Under The Price-Anderson Act*, supra, at 370; Comment, *Nuclear Torts: The Price-Anderson Act and the Potential for Uncompensated Injury*, 11 N.Eng.L.Rev. 111, 120-22 (1975); Comment,

Radiation and Preconception Injuries: Some Interesting Problems in Tort Law, 28 S.W.L.J. 414, 433 (1974); Comment, *The Irradiated Plaintiff: Tort Recovery Outside Price-Anderson*, 6 Environ.L. 859, 884 (1976); Comment, *The Plutonium Society: Deterrence and Inducement Factors*, 41 Alb.L.Rev. 251, 269 (1977) (strict liability "certainly applicable"); Prosser, *Law of Torts*, § 78 at 516 (4th ed. 1971); Harper and James, *Law of Torts*, at 812 (1st ed. 1956); Restatement (Second), *Torts*, § 520, com.g.h (1976) (§ 519 strict liability for abnormally dangerous activities applicable to nuclear power), Cf. Keyes and Howarth, *Approaches to Liability for Remote Causes: The Low Level Radiation Example*, 56 IowaL.Rev. 531, 546 (1971) (whether strict liability applies to low level radiation injury not resolved).

Defendants also object to the application of strict liability in the instant case because the injured party was an occupational worker who "assumed the risk" of this type of injury. See Restatement (Second), Torts, § 523 (1976). It was uncontested in this case that Silkwood was contaminated at home in her apartment, an estimated twenty miles from the nuclear plant site. The jury was unable to find that Silkwood intentionally carried the plutonium from work to her apartment, and no evidence was introduced of any other way in which the contamination could have been work-related. As an occupational worker, Silkwood did not assume the risk of off-site contamination unrelated to her employment.

No authority supports this Court's excluding from application of strict liability workers who, during their private lives and away from their work, are exposed to radiation that coincidentally originates from their place of employment. Away from their employment these workers stand as any other member of the public. Kerr-McGee's argument that plaintiff had the burden of proving that the incident was not work-related overlooks the fact that this issue is an affirmative defense. The Re-

statement itself entitles § 523 "assumption of the risk," a defense that must be affirmatively pleaded and proved by defendants under federal rules. See Restatement (Second), Torts, § 523, com. a (1976); Rule 8, Federal Rules of Civil Procedure.

Defendants contend that the application of strict liability is in conflict with federal energy legislation unless imposed in a situation where defendants have failed to comply with federal regulations controlling the facility. It is important to understand the thrust of this argument. In essence, defendants here contend that except in the event of their noncompliance with federal regulations, they are absolved from, and therefore immune against, *any* liability whatsoever for damages caused through their operation of a nuclear facility.

If defendants contend that without non-compliance, application of strict liability conflicts with federal policy, but that application of negligence principles does not, they draw a distinction without foundation in the law. Nowhere is authority cited or logic or reason adduced to support the idea that imposition of strict liability somehow is inconsistent with federal law, while the imposition of ordinary negligence to determine liability for the same conduct is not. This Court cannot discern any reason for such a distinction.

What defendants indirectly argue, of course, is that any determination of their liability—whether it be through application of state law principles of strict liability or negligence—is inconsistent with federal law unless defendants have violated a specific federal statutory or regulatory provision. This is made apparent in defendants' argument that their compliance with government regulations is conclusive evidence of non-negligent conduct. Thus, absent non-compliance with federal regulations, liability could not be imposed on a negligence theory either.

This brings the Court to an analysis of defendants' contention that federal regulations alone control liability determinations, and that these defendants may not be held liable absent a showing of a regulatory violation. The import of this contention and the theory upon which it rests must be made clear. Proceeding by way of example may prove illuminating.

Defendants' evidence and arguments in the trial of this case demonstrated that federal regulation and regulatory guidelines would permit .5 grams of plutonium to escape their facility without detection, even assuming complete compliance with federal regulations and perfect operation of all detection equipment. Thus, a single worker who left the facility building twice per day could remove without detection 1 gram of plutonium per day, or 1 pound of plutonium over approximately 19 months. Two workers could achieve the same result in less than a year. Regulations controlling inventory difference would permit this facility to have approximately nine or ten pounds of plutonium unaccounted for, so loss of this one pound could easily go unnoticed. A Kerr-McGee witness characterized the implications of this 1 pound of plutonium in the public domain as "sheer havoc and death." Even the potentially very grave dangers of one half gram of plutonium in the public domain were agreed upon by virtually all witnesses. For this "sheer havoc and death" Kerr-McGee would claim freedom from responsibility and liability because of federal preemption. Congress, of course, intended no such thing.

As noted above, Congress clearly and indisputably indicated in its consideration of the Price-Anderson Act that state law would govern liability determinations for nuclear accidents in all actions. This was true whether or not the indemnification and waiver provisions of Price-Anderson were applicable, and whether state law would apply the strict liability principles under the Restatement of Torts, the strict liability principles of *Rylands*

v. Fletcher, 3 H. & C. 774, 159 Eng.Rep. 737 (Ex. 1865), *rev'd.* L.R. 1 Ex. 263 (1866), *aff'd.* L.R. 3 H.L. 330 (1868), or ordinary principles of negligence. Quite simply, there is no preemption problem when Congress manifests its intent that state law play this specific role in the liability scheme.

The underlying thrust of defendants' argument is that Congress intended these principles of state law to apply only if a violation of the federal regulations is first demonstrated. It is quite clear that Congress intended no such effect be afforded these administrative regulations, and the commentators have so agreed. Defendants' citation to preemption cases is inapposite where those cases deal with states that impose upon the nuclear licensee a standard of conduct that conflicts with the federal scheme and thus frustrates its effectuation. Application of state principles of liability for injury caused by conduct both within and in violation of the regulatory standards is consistent with the federal scheme.

APPLICABILITY AND EFFECT OF GOVERNMENT REGULATIONS

Having decided that federal preemption does not bar imposition of liability under state law, the Court must address the effect of federal regulations on the judgment of defendants' conduct by the jury. As the Court understands their argument, defendants raise four separate contentions in this regard. For simplicity of exposition, it is helpful to separate the appropriate regulations and license requirements into two different groups —those relating to the conduct and operation of the facility, the "operational regulations," and those which set the maximum permissible exposure limits for different workers, the "exposure limit" regulations.

Defendants first have argued that substantial compliance with "operational regulations" bars recovery of ac-

tual damages, both because it prohibits imposition of strict liability, as discussed above, and because it is conclusive evidence of non-negligent conduct to bar a claim of ordinary negligence. Alternatively, defendants argue that substantial compliance with these operational guidelines must bar any award of punitive damages. Both arguments address whether liability may be imposed on defendants for operating their facility in such a way that plutonium might escape into the public domain. Defendants contend that when they do all that the government requires, they cannot be considered negligent and, *a fortiori*, cannot be found willfully reckless.

Defendants' arguments on the "exposure limit" regulations address the separate issue of whether damages may be imposed for the escape of plutonium in the instant case. Defendants contend that a jury may not conclude that actual injury is inflicted for exposures below the 40 nanocurie limit for occupational workers, like Silkwood here. Alternatively, defendants argue that even if a jury finds that the instant exposure would create actual injury, a defendant may not be held liable in damages therefor because federal regulation permits it. Lastly, defendants argue that punitive damages ought not to be awardable for any conduct that has resulted in an exposure within the permissible guideline limits.

Had this Court instructed the jury that substantial compliance with governmental regulations would bar an award of actual damages in the area of nuclear power, the Court would have paved a new road in jurisprudence that heretofore has not existed in any other comparable area of the law. Liability for operators and manufacturers of aircraft represents a situation analogous to that in the instant case. The federal government has occupied the field of regulating aircraft, and no aircraft may fly in this country without a federal certification of its airworthiness. *In re Paris Air Crash of March 3, 1974*, 399 F.Supp. 732 (C.D.Cal.1975). Nevertheless,

strict liability is frequently applied under state law for injuries suffered thereby, and preemption is not considered a problem. See *In re Paris Air Crash of March 3, 1974*, supra. Actions for injuries allegedly caused by a defectively designed aircraft are not barred by reason of the FAA's certifiaction of the craft and of its design as airworthy. See *Rigby v. Beech Aircraft Co.*, 548 F.2d 288 (10th Cir. 1977).

It is commonly the rule in the field of aviation law that a defendant's complete compliance with governmental safety regulations is only some evidence of the defendant's exercise of reasonable care, but it is not conclusive. Evidence of compliance is therefore admissible for consideration by the jury, but it does not bind the jury to find that a defendant's conduct was reasonable under the circumstances. *Bruce v. Martin-Marietta Corp.*, 544 F.2d 442, 446 (10th Cir. 1976); see also *Banko v. Continental Motors Corp.*, 373 F.2d 314 (4th Cir. 1966); *Prashker v. Beech Aircraft Corp.*, 258 F.2d 602, 605 (3rd Cir. 1958); *Citrola v. Eastern Air Lines, Inc.*, 264 F.2d 815, 817 (2d Cir. 1959); *Manos v. Trans World Airlines, Inc.*, 324 F.Supp. 470 (N.D.Ill.1971).

In a similar vein, a failure to take certain acts can be found negligent, even though the FAA regulations do not require or suggest them. *Bibler v. Young*, 492 F.2d 1351 (6th Cir. 1974); *Todd v. United States*, 384 F. Supp. 1284, 1291 (M.D.Fla.1975) (standard of reasonable care may differ from conduct imposed by safety regulation). Notwithstanding the "complex and exacting scheme of regulation[s] developed by the FAA," there is no problem of federal preemption when courts develop rules of liability and damages where the high standard of conduct consistent with the regulatory scheme has not been maintained. See *Fisher v. Bell Helicopter Co.*, 403 F.Supp. 1165, 1172 (D.D.C.1975). Violation of a safety regulation is, however, conclusive evidence of negligence

per se. *Freeman v. United States*, 509 F.2d 626, 630 (6th Cir. 1975); *Todd v. United States*, supra.

The same principles obtain in the field of drug manufacture and distribution, another field where a governmental agency has promulgated a vast and extensive network of administrative regulations designed to insure public safety. It is typically, the rule that compliance with federal laws and regulations concerning a drug does not in itself absolve a manufacturer of liability for injury caused by that drug. *Salmon v. Parke, Davis & Co.*, 520 F.2d 1359 (4th Cir. 1975), *citing*, 1 Frumer & Friedman, *Products Liability*, § 8.07[1]. A defendant's compliance with these government regulations is admissible before the jury as some evidence of the exercise of reasonable care, but it is not conclusive or binding on the jury. *Brick v. Barnes-Hines Pharmaceutical Co.*, 428 F. Supp. 496, 498 (D.D.C.1977); *Chambers v. G. D. Searle & Co.*, 441 F.Supp. 377, 383 (D.Md.1975) (compliance with FDA requirements on required warning not conclusive on adequacy of warning), *aff'd*, 567 F.2d 269 (4th Cir. 1977); *Gonzales v. Virginia-Carolina Chemical Co.*, 239 F.Supp. 567, 575 (E.D.S.C.1965).

Thus, strict liability may be imposed on a defendant for failure to warn adequately even though full compliance with all government regulations and requirements in production and marketing is demonstrated. *Stromsodt v. Parke, Davis & Co.*, 257 F.Supp. 991, 997 (D.N.D.1966) *aff'd*, 411 F.2d 1390 (8th Cir. 1969). See generally 1 Frumer & Friedman, *Products Liability*, § 5.04 (1979). Similarly, a manufacturer has been held liable for negligent failure to test a drug adequately under foreseeable market conditions even though federal regulations did not require any such test. A manufacturer cannot exempt itself from liability for failure to exercise due care in an area where no specific regulation requires the affirmative act. *Tinnerholm v. Parke, Davis*

& Co., 285 F.Supp. 432, 448 n. 12 (S.D.N.Y.1968), *citing* 3F Frumer & Friedman, *Products Liability*, § 33.01[3], *aff'd*, 411 F.2d 48 (2d Cir. 1969). The correlative rule is also applied that violation of a safety regulation constitutes conclusive proof of negligence per se. *Orthopedic Equipment Co. v. Eutsler*, 276 F.2d 455, 461 (4th Cir. 1960); *Griffen v. United States*, 351 F.Supp. 10 (E.D.Pa. 1972); *Gonzales v. Virginia-Carolina Chemical Co.*, supra.

A recent author has commented on the issue of tort liability for microbiologists engaged in hazardous genetic mutation research under the auspices of the National Institute of Health, where strict containment of biological material is required. That writer has suggested that compliance with NIH guidelines should constitute strong evidence of non-negligent conduct in an action for injuries caused by the research. He further finds, however, that courts would likely not deem compliance entitled to a presumption of reasonable care. McGarity, *Book Review*, 27 Kan.L.Rev. 459, 466 (1979). No problems of preemption or application of a "stricter standard" under state law have been perceived in any of these areas.

Those writers who have addressed this subject in the field of nuclear facilities and radiation injuries have similarly concluded. Quoting again from the early treatise on this subject, the text writers stated:

> "[I]t seems to be agreed generally that proof of compliance with a criminal statutory or administrative standard should be accepted as some evidence of having used due care but that it ought not to be accepted as conclusive proof.
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> "The present writers feel that, in general compliance with governmental radiation regulations should be accepted in negligence cases as evidence of having

> acted reasonably but should not be used as conclusive proof because there are too many variables in such a rapidly developing field. We would apply this rule generally to civil statutory and administrative regulations as well as criminal."

Stason, Estep and Pierce, *Atoms and the Law*, 125, 126 (1959). Noting a New Jersey trial court decision with a different holding, the writers concluded that they were:

> "[i]nclined toward the view that proof of compliance with a safety code, whether established by unofficial experts in the field or by a statute or administrative rulings, should be treated merely as evidence of use of due care." Id. at 152.

The purpose of AEC regulations, and the posture of the government agency at the time of their promulgation, render it unwise to bestow upon these health and safety operational regulations an absolute deference as conduct reasonable under any circumstances. When the AEC initially undertook promulgation of health and safety regulations, the atomic industry was just beginning to develop. Thus, the AEC faced the unique problem of promulgating regulations in advance of the development of those problems it was intending to regulate. Additionally, a variety of different types of facilities existed with diverse safety and security problems, and the AEC was inexperienced in the regulation of any industrial activities. These factors made it unwise, and even impossible, for the AEC to devise a set of government rules that would cover all atomic activities. Trowbridge, *Licensing and Regulation of Private Atomic Energy Activities*, 34 Tex.L.Rev. 842, 843-51 (1956).

Sound logic supports the proposition that compliance with statutory and regulatory provisions does not necessarily lead to the inference that negligent conduct is not present.

> "[I]n a field developing as rapidly as atomic energy, particularly as to our knowledge of the injurious effect of radiation, it would be most unfortunate if statutes, administrative regulations, or decisional rules should develop hard and fast lines as to what is or is not a reasonable standard of conduct."

Stason, Estep, and Pierce, *Atoms and the Law*, supra, at 154.

This is especially true when the AEC itself acknowledges that these regulations are not static or final standards for reasonable care upon which the industry might absolutely rely without additional safety precautions. The agency itself originally recognized that atomic energy regulation would be a slow evolutionary process with an emphasis in agency regulations on encouraging private industry both to develop their own measures of self-regulation and to improve upon the standards imposed by the government. Trowbridge, *Licensing and Regulation of Private Atomic Energy Activities*, supra, at 843-51. The AEC originally announced its intention to rely on certain measures of protection that it expected industry itself to put into effect, even though the Atomic Energy Act authorized the AEC to describe in detail the required measures of protection. *Hearings on the Development, Growth, and State of the Atomic Energy Industry before the Joint Comm. on Atomic Energy*, 84th Cong., 2d Sess., pt. 1 at 114-15 (1956).

The AEC still acknowledges that its regulations evolve with time and are established or modified as operational experience is gained in new plants and as further information is obtained from ongoing research and development programs. Nuclear Safety Staff, United States Atomic Energy Commission, *Regulation of Nuclear Power Reactors and Related Facilities*, 16 Atomic En.L.J. 256, 260 (1974). A Director of Regulations of the AEC has recently cited the need for continuing development

of operational procedures at nuclear facilities. Muntzing, *Nuclear Standards—Licensing, Government and Industry*, 14 Atomic En.L.J. 14 (1972). Others have also noted the need for constantly improving regulations governing the handling of nuclear fuels and the AEC's own awareness of the need for better standards. Comment, *Policing Plutonium: The Civil Liberties Fallout*, 10 Harv. Civ.Rights—Civ.Lib.L.Rev. 369 (1975).

These and other reasons support the proposition that the general rule should be no different from the atomic industry. Compliance with government safety regulations should be accepted as evidence of acting reasonably, but should not be used as conclusive proof because too many variables exist in any given situation for an absolute standard to apply. Comment, *Radiation and Preconception Injuries: Some Interesting Problems in Tort Law*, 28 S.W.L.J. 414, 428 (1974).

This Court's holding conforms both to traditional principles of tort law and to the principles many anticipated would govern similar cases. Defendants' arguments have been made before and rejected by other courts in analogous contexts. It should not be surprising that one commentator described as "powerful precedent" for the radiation injured plaintiff the case of *McLane v. Northwest Natural Gas Co.*, 255 Or. 324, 467 P.2d 635 (1970), which involved the explosion of a natural gas storage tank. There the court rejected the contention of a heavily regulated public utility that state authorizing legislation, which expressly permitted such storage of natural gas, prohibited imposition of strict liability. The court further rejected the utility's contention that the presence of safety regulations required a violation of some regulation before liability could be imposed. With surprising foresight, the writer aptly described these as likely defenses available to a nuclear operator, such as Kerr-McGee here. Comment, *The Irradiated Plaintiff: Tort*

Recovery Outside Price-Anderson, 6 Environ.L. 859, 886-87 (1976).

The same general rule is applicable to actions for radiation injuries where a plaintiff's exposure is within the maximum permissible exposure regulations established by the AEC. These regulations are not intended to represent levels of radiation exposure at which no injury may be inflicted. Indeed, the exposure level regulations were adopted by the AEC from standards originally promulgated by the National Council for Radiation Protection and the International Commission on Radiological Protection solely as guides for good radiation practices rather than strict levels of safety. Hallmark, *Radiation Protection Standards and the Administrative Decision-Making Process*, 8 Environ.L. 785, 794, 800 (1978). Both the NCRP and ICRP have continuously emphasized that these recommendations were furnished as guides and both bodies cautioned against their adoption as rigid standards. Hansen, *Development and Application of Radiation Protection Standards*, 12 Idaho L.Rev. 1, 9 (1975). Both the AEC and the Environmental Protection Agency adopt the position that these levels are not a "safe" or threshold level below which injury does not become a possibility. Baram, *Radiation from Nuclear Power Plants: The Need for Congressional Directives*, 14 Harv.J.Leg. 905, 907 (1977).

Thus, the standards represent a balancing of social benefit against estimated cost, a calculated risk in an area where scientific knowledge of low level radiation exposure effects is insufficient to determine the precise risk actually involved. Green, *Radiation Wastes and the Environment*, 11 Nat.Res.J. 281, 292 (1971); Comment, *Survey of the Governmental Regulation of Nuclear Power*, 59 Marq.L.Rev. 836, 843 (1976). Hallmark, *Radiation Standards and the Administrative Decision-Making Process*, supra, at 794, 808.

> "The setting of exposure standards at a given level requires the weighing of these risks and benefits to be derived therefrom. The weighing requires a value judgment as well as a measuring, and thus the standards are not scientific numbers below which no danger exists.
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> "There has been a history of disagreement with the established radiation protection standards on the part of some members of the scientific community. The basis for this disagreement has often been the fact that science has been unable to fully discover the biological effects and costs of ionizing radiation. . . . This ignorance makes is impossible to assess fully the risks attendant to exposure in ionizing radiation."

Crowther v. Seaborg, 312 F.Supp. 1205, 1231-32 (D.Colo. 1970); see also *Citizens for Safe Power, Inc. v. Nuclear Regulatory Comm'n.*, 173 U.S.App.D.C. 317, 322, 524 F.2d 1291, 1296 (D.C.Cir. 1975) (undetermined whether exposure at guideline levels will or will not have injurious effects).

Indeed, this acknowledgement of the limitations of the regulations led to the adoption in 1970 of the concept of "as low as practicable," later changed to "as low as reasonably achievable." This additional standard imposes on licensed operators the duty to maintain the release of radioactive material to unrestricted areas as far below the regulation limits as is practicable (now reasonably achievable). Baram, *Radiation from Nuclear Power Plants*, supra, at 927-28; *AEC Staff Study of the Price-Anderson Act, Part I*, supra, at 267.

Even though the maximum permissible exposure ceiling has been frequently rendered more stringent over the years, see Rogers, *The Development and Use of Regulatory Standards*, 14 Atomic En.L.J. 173, 178 (1972); Goodman, *Radiation Injuries*, 5 Atomic En.L.J. 20, 23

(1963), the regulations still embrace the idea that exposures within the standards pose a potential for personal injury. Green, *Nuclear Power: Risk, Liability, and Indemnity*, 71 Mich.L.Rev. 479, 481 (1972-73); Taylor, *Standards for Protection Against Radiation*, 12 Atomic En.L.J. 139, 141 (1970); Comment, *Nuclear Torts, The Price-Anderson Act and the Potential for Uncompensated Injury*, 11 N.Eng.L.Rev. 111, 113 (1975); Note, *The "Extraordinary Nuclear Occurrence" Threshold and Uncompensated Injury Under the Price-Anderson Act*, supra, at 3883 (1974).

> "In view of our present lack of knowledge as to exactly how damaging small doses [of radiation] are likely to be over a long period of time, the Commission's exposure regulations cannot be said to fix definitively the point at which radiation becomes unacceptably dangerous."

Stason, Estep, and Pierce, *Atoms and the Law*, supra, at 128; see also Hansen, *Development and Application of Radiation Protection Standards*, 12 Idaho L.Rev. 1, 26 (1975) (exposure limits standards not decisive in determining liability in tort cases).

Some writers, however, have expressed their view that more deference should be paid these exposure limit regulations. In their treatise on the subject, Professors Stason, Estep and Pierce suggest that whenever someone is exposed to radiation where the amount of radiation received, or the circumstances in which it was received, do not violate the applicable health and safety regulations, compliance should be argued to prove reasonable conduct. These authors urge that where the AEC makes a deliberate judgment on the specific issue of maximum exposure levels, a judge should hold compliance with that requirement as conclusive proof of compliance with a reasonable standard of conduct. Stason, Estep and Pierce, *Atoms and the Law*, supra, at 127-28.

These authors, however, acknowledge that both major treatises on torts reject this view. See 2 Harper & James, *The Law of Torts*, § 17.6 at 1014 (1st ed. 1956); Prosser, *Law of Torts*, § 36 at 203 (4th ed. 1971), cited in *Atoms and the Law*, supra, at 129. The authors conclude that:

> "[c]ompliance or non-compliance with industry safety codes certainly should be given weight, and in most cases perhaps should constitute prima facie, if not conclusive proof, *when no evidence to the contrary is introduced.* Courts, however, should avoid a rigid rule and decide individual cases on the basis of the specific evidence produced." (Emphasis added.)

Id. at 155. At a later point in their treatise, the authors acknowledge that nuclear operators may be held liable for damages for the escape of nuclear materials, even where the amount that escapes is within the permissible governmental limits. Id. at 722.

More recent writers have also suggested that a greater deference be given governmental exposure limits, but they acknowledge that as presently written, the regulations may not be so construed. These authors suggest possible use of the government regulations as a per se defense to a latent injury radiation claim, whereby a court would find that a plaintiff has failed to establish causation of his cancer by any exposure within the permissible governmental limits. Keyes and Howarth, *Approaches to Liability for Remote Causes: The Low Level Radiation Example*, 56 Iowa L.Rev. 531, 567-69 (1975). The writers acknowledge that:

> "[a]t the present time, however, the AEC has not declared the permissible dose level standards to be absolute safety limits. Nowhere in the regulations does any such language appear. The standards are considered only to be guidelines. *Their use as a negligence-limiting factor, therefore, is severely limited.* Employees are in no way precluded from bringing

suit upon radiation exposures even well below the maximum permissible standards.

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"[The standards] are not . . . being granted any conclusive weight. Thus despite the fact that medical science feels the probabilities of direct causality are so remote between radiation at levels below the maximum prescribed standards, and a cancer or other disease, plaintiffs are not estopped from winning their cases." (Emphasis added.)

Keyes and Howarth, *Approaches to Liability for Remote Causes*, supra, at 545-46.

These writers acknowledged that the standards represent a policy of balancing the benefits to society from the use of atomic energy and the possible harm to individuals from radiation. They continue:

"Implicit in this decision is the assumption that, although very slight, some harm may be possible to those exposed below the permissible standards. It is, therefore, difficult to argue that these should be a judicially noticeable standard which would serve as a per se defense through the refusal of courts to consider any possible causal link between radiation and injury."

Id. at 567.

The authors conclude that it is "unfortunate" that in radiation litigation the published radiation exposure standards are merely "some evidence" going to the weight of the evidence to be evaluated on both negligence and causation.

"However, it would not appear that this per se defense approach can be supported without amendment of the law and the present AEC regulations and manual requirements. *Mere compliance with the standards will not be interpreted as determinative*

> *of the issue of negligence and causation in the absence of a specific indication on the part of the promulgators of the standards that this was their intent.*" (Emphasis added.)

Id. at 570; see also Hamilton and Krebs, *Radiation Protection Regulation: An Opportunity for Cooperative Federalism*, 12 Vand.L.Rev. 395, 407-08 (1959) (basic problem of radiation protection is to ascertain how much exposure may be permitted; separate problem is to determine what special measures are required to provide compensation to those injured by such exposure).

In one of the few latent injury radiation cases to reach a court, the Court applied this approach. In *Mahoney v. United States*, 220 F.Supp. 823 (E.D.Tenn.), *aff'd*, 339 F.2d 605 (6th Cir. 1964), a radiation worker who received exposures within the governmental regulatory limits was denied recovery of damages for his cancer on grounds that he failed to prove causation between the exposure and the disease. Compliance with the guideline limits, however, was treated only as some evidence of the lack of a causal nexus. It is clear that the court did not treat the regulations as conclusive on the point.

Even the adoption of the Stason, Estep and Pierce suggestion would not aid the Kerr-McGee defendants here. As noted in the record, Silkwood's exposure took place at home in her apartment. Although her body burden constituted approximately one-fourth of that permitted by regulation for a radiation worker during her lifetime, it exceeded by two and a half times the exposure permitted to any other member of the public. There mere fortuity of her employment rendered the exposure within governmental guidelines. Any visitor in the apartment who received the same exposure would represent a clear violation of the exposure limit regulations.

It is also clear that the circumstances under which Silkwood received the exposure were not embraced by the

government regulations. The ten-fold difference in standards for workers and non-workers obviously does not reflect a medical judgment that [illegible]-workers are more prone to the biological effects of radiation. Rather, the standards reflect the philosophy that a radiation worker tacitly assumes the very small risk attributed to receiving radiation doses not exceeding the currently acceptable permissible limits. Assuming that the worker is properly informed of the nature and magnitude of the risk, as far as known, the market price for labor needed to induce workers to accept the occupational hazard should be commensurate with the risk. The market price of labor essentially compensates the worker for taking the risk. See Keyes and Howarth, *Approaches to Liability for Remote Causes*, supra, at 542.

Silkwood, of course, did not assume in her occupation the risk of the contamination of her apartment. Nor were her employment wages designed to compensate her for any possible radiation exposure to which she might be subjected by a Kerr-McGee accident unrelated to her work at the plant. The jury in this case failed to find proof that the plutonium was carried by Silkwood from the facility. In essence, no showing was here made that Silkwood's contamination was an "occupational hazard" the risk of which an employee customarily assumes. Thus, the argument for application of the higher permissible exposure regulations for workers fails under these condition. Even were these standards entitled to conclusive effect, in all likelihood the Court could not have so instructed the jury in the instant case.

Little further need be said on this Court's failure to instruct the jury that substantial compliance with government regulations would bar an award of punitive damages. The existence of wanton conduct depends upon the actor's or tortfeasor's mental attitude at the time of the conduct. *Tappen v. Ager*, 599 F.2d 376, 382 (10th Cir. 1979). The culpable mental attitude necessary for puni-

tive damages was set forth in the punitive damage instruction. For the same reason that mere compliance with government regulations cannot necessarily be found consistent with the reasonable person standard, so too it cannot necessarily be found consistent with an attitude and conduct devoid of that state of mind for which an award of punitive damages is appropriate.

As in the drug and aviation cases noted above, a manufacturer may be found to have duties in addition to or different from those prescribed by regulation. A mere failure to act as a reasonable person in conformity with that duty would constitute negligence. A knowing and intentional disregard of that duty might under some circumstances constitute the gross recklessness and indifference to the safety of others that render punitive damages appropriate.

No one could argue, for example, that a manufacturer who knew that its drug would cause blindness would not be responsible for punitive damages for knowingly marketing that product for profit, even though the drug had been approved for distribution and marketing after compliance with all FDA regulations. Similarly, no one would question the propriety of punitive damages assessed against an airplane manufacturer who, for example, knew that its plane was defectively designed and could crash during flight, notwithstanding that the manufacturer had complied with all government regulations and obtained an FAA certificate for the craft as airworthy. Cf. *Tinnerholm v. Parke, Davis & Co.*, supra (FDA testing requirements for drug failed to reveal drug's ability to cause injury; liability imposed); *Gillham v. Admiral Corp.*, 523 F.2d 102 (6th Cir. 1975) (television manufacturer liable for punitive damages where evidence showed knowledge of grave danger to safety and failure to redesign or warn).

Similarly, Kerr-McGee's argument that compliance with regulations would still permit the escape of small quanti-

ties of plutonium overlooks the circumstances where punitive damages might be appropriate for damages caused through that escape. Surely defendants would not argue that punitive damages would be inappropriate if a nuclear licensee knew of the time and manner of the plutonium's escape, but did nothing to prevent it because the regulations did not require it. Similarly, if a licensee were aware of defects within its facility that would render likely repeated exposures of employees to plutonium, but did nothing to correct it, as some evidence in this case indicated, punitive damages might be considered, regardless whether government regulations required those changes to be made. The character of the conduct and the state of the actor's mind control the propriety of punitive damages, and not merely whether that conduct complies or fails to comply with a government regulation. See Restatement, *Torts* § 908(2) com. e at 556-57 (1939).

Defendants argue that the Court's instructions would result in imposition of punitive damages on a defendant who relied on the government standards in good faith. This is not the case. Good faith belief in, and efforts to comply with, all government regulations would be evidence of conduct inconsistent with the mental state requisite for punitive damages. Defendants placed this matter in issue and introduced evidence in this regard. Defendants were free to argue their good faith conduct in operating their facility safely. The jury was instructed to judge that conduct in light of the standards for the imposition of punitive damages. Had the jury believed this evidence, an award of punitive damages would not have been appropriate. Defendants' argument that their conduct could not have been so found, based on the record, will be dealt with below.

Defendants' argument that no liability for actual damages may be imposed when a plaintiff's exposure is within governmental regulatory limits has been shown to be erroneous. Defendants' further argument that no punitive

damages may be awarded on these facts similarly misses the point. Punitive damages in this case were awarded for conduct that caused or permitted the escape of plutonium and led to the contamination of Silkwood in her apartment. The jury was so instructed.

Had this Court held that punitive damages could not be awarded unless exposure limit regulations were exceeded, the Court would have committed serious error. Such an instruction would bar punitive damages in situations where a defendant might intentionally violate every federal regulation controlling the operation of the facility, a condition where authorities agree a defendant would be found negligent per se. Comment, *The Irradiated Plaintiff: Tort Recovery Oustide Price-Anderson*, supra, at 872; Prosser, *Law of Torts*, § 36 at 200 (4th ed. 1971); Stason, Estep and Pierce, *Atoms and the Law*, supra, at 119 (violation of a statutory or administrative standard makes a prima facie case of lack of due care). If a defendant knowingly and grossly violated these operational regulations and thereby permitted a large quantity of plutonium to escape, punitive damages would be properly submissible to the jury, even if only a limited exposure to one person within the guidelines were shown.

The Court should add a few general comments on defendants' preemption arguments to focus on and clarify different aspects of those arguments that are not always clearly raised. Defendants' argument against the application of strict liability or negligence absent a violation of government regulations embraces the proposition that because the government has legislated in the area, it has occupied the field and precluded application of state liability principles. As demonstrated above, Congress clearly had no such intention.

More troublesome, however, is defendants' related contention made explicit at oral argument on these motions that they had *no* duty to contain plutonium within their

facility, other than that imposed by federal law, to protect members of the public from this dangerous substance. Unless federal law imposed the obligation, and presumably unless federal law imposed liability for its breach, defendants are allegedly immune for any damages caused by the escape of plutonium.

This proposition is, of course, legally unsupportable. As noted above, these defendants had a duty under part 20 of Title 10 of the Code of Federal Regulations to maintain the release of radiation "as low as reasonably achievable." Compliance with this standard cannot be demonstrated merely through control of escaped plutonium to within any absolute amount. See *York Committee for a Safe Environment v. United States Nuclear Regulatory Comm'n.*, 174 U.S.App.D.C. 29, 527 F.2d 812 (D.C.Cir.1975). It is, therefore, not inconsistent with any Congressional design to impose liability upon defendants for actual damages for escape of plutonium caused by negligence or lack of reasonable conduct. Nor is it inconsistent to impose punitive damages for the escape of plutonium caused by grossly negligent, reckless and willful conduct. Common law duties also exist for the breach of which liability may be imposed, as discussed above.

The additional contention apparently underlying defendants' primary arguments that no liability may be imposed outside Price-Anderson is likewise indefensible. This argument would suggest the anomaly that by insuring application of strict liability and adequate insurance coverage for major disasters, Congress peculiarly conferred immunity on operators for lesser nuclear accidents where, for example, actual damages and total deaths did not exceed $5,000,000. See 42 U.S.C. § 2210 (n) (Supp. 1979); 10 C.F.R. § 140.85(a) (1974).

This argument would also imply that Congress left the entire nuclear industry immune for whatever catastrophic occurrence it caused subsequent to the Atomic

Energy Act of 1954, and prior to the adoption of Price-Anderson three years later. Immunity would still exist today for those nuclear facilities, perhaps including fuel reprocessing plants like defendants' here, to which provisions of Price-Anderson do not apply. 42 U.S.C. § 2210 (n) (1) (Supp. 1979); see also *AEC Staff Study of the Price-Anderson Act, Part II*, 16 Atomic En.L.J. 297, 304 (1975); England, *Nuclear Insurance and the Price-Anderson Act*, 13 Atomic En.L.J. 27, 48-49 (1971). The enormity of the implications of even the suggestion of the proposition dispels any serious consideration. Congressional history conclusively refutes this contention. See S.Rep. No. 296, 85th Cong., 1st Sess. 9, *reprinted in* [1957] U.S.Code Cong. & Admin.News at 1810.

Imposition of common law liability is thus consistent with the virtually unanimous legal analysis and expectation extant in both legal and industrial communities. This Court instructed that compliance with regulations would be very strong, if not conclusive, evidence that punitive damages were not appropriate. Substantial compliance was entitled to strong consideration to the same end. These instructions adequately reflect the law on the facts of this case and, if anything, were overly generous to the defendants.

Defendants never came forward with those regulations with which they claimed substantial compliance. There was evidence of regulatory noncompliance. A Kerr-McGee witness during the trial conceded that the defendants' inventory difference, or the amount of plutonium unaccounted for by the defendants at their facility, slightly exceeded that permitted by regulation. An NRC official called by defendants testified that he did not feel that Kerr-McGee was conforming its conduct to the "as low as reasonably achievable" standard. Dr. Karl Morgon, a plaintiff's witness, testified that Silkwood's exposure did not conform to ICRP guidelines and part

20 of the federal regulations for an exposure received within a single year, even though Silkwood's burden was within the regulation limits for a lifetime exposure.

Other regulations control defendants' conduct in the instant situation. They forbid a licensee from possessing, using or transferring plutonium in such a manner that radiation levels in unrestricted areas could exceed prescribed levels. 10 C.F.R. §§ 20.105(b), 20.106(a) (1974). Although the parties disagree, the record contains some evidence that the level of plutonium in Silkwood's apartment may potentially have exceeded that permitted in an unrestricted area, such as a residence.[1]

The general question of how much compliance should be considered "substantial" is, of course, an undefinable factor ultimately left to the wisdom of the jury in its judgment of defendants' operation of their facility. One plaintiff's witness, Dr. Morgon, offered his opinion that if rated or graded for their operation of the Cimarron facility, defendants should receive an "F" or failing grade. One defense witness, a regional director of the NRC, himself stated that the facility would in his judgment receive a "C." The question for the jury was to judge the relevant operations of the plant as defined in the instructions solely on the basis of the evidence before them and in light of the standards given by the Court for negligent, or for reckless and wanton conduct.

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[1] The applicability of this specific regulation was first addressed by the parties by way of letter to the Court after argument on these motions. Compliance with this specific regulation was not argued during the trial. In their letters to the Court, the parties could not agree on the factual question of whether compliance was demonstrated by the record. Since the issue of compliance with this regulation came up as an anonymous number in the trial but was not specifically addressed in the evidence or law before the jury, it is an extraneous issue for the purpose of the Court's decision on the extant motions, even though latent in the total evidence and law governing this case.

It was a factual question solely for the jury to compare defendants' conduct with the regulatory standard and decide whether the record demonstrated "substantial," "minimal" or "bare" compliance, or noncompliance of whatever degree. In the last analysis, however, the jury must still compare this factual finding of the defendants' conduct with the legal standards appropriate for liability for negligence or for punitive damages. All the relevant evidence was before the jury and the jury was required by law to measure that against the applicable legal standards. Defendants do not disagree with the legal standards, but rather disagree with the factual finding reached by the jury in judging defendants' conduct against the standards.

Defendants propose in their "substantial compliance" criterion an inflexible standard unknown elsewhere in tort law and unpermitting of just application to any variety of different factual situations. It imposes upon the Court the additional, onerous burden of instructing the jury on an indefinitely large number of unspecified and complicated regulations. The Court must then inform the jury that "substantial" compliance with these regulations bars absolutely any award of punitive damages. Whether any regulation is entitled to greater weight than others is left unclarified. Artificial erection of this undefinable, absolute barrier against punitive--or even actual—damages would be an invasion of the proper function of the jury inconsistent with the role of administrative regulations in assessment of a defendant's exercise of due care.

Indeed, defendants' strenuous reliance on the cloak of "substantial compliance" as an absolute defense against actual or punitive damages is rather anomalous. It is predicated, presumably, on the idea that the escape of 300 micrograms of plutonium from their facility does not represent "substantial" noncompliance with federal regulations. Yet defendants apparently do not maintain that

federal regulations authorize the distribution of 300 micrograms of plutonium into each of various random households in the public domain. Defendants' absolute theory of "substantial compliance" would also apparently bar punitive damages even where a licensee intentionally and maliciously planted this plutonium in a household. The instant amount would simply not represent a "substantial" violation of any regulation. Such a standard improperly diverts the jury's focus from considerations properly germane to the determination of whether punitive damages are appropriate. The Court correctly chose not to instruct the jury in such a manner.

APPLICABILITY OF WORKMEN'S COMPENSATION LAWS

Defendants in substance raise two arguments why workmen's compensation laws allegedly apply to this plaintiff's claim to bar its assertion on common law grounds in federal court. First, defendants contend that the mere coincidence of the nature of defendants' business enterprise and the type of injury suffered is sufficient to render applicable the Oklahoma compensation statute. This Court has already disposed of this contention in an earlier order in this case dated December 12, 1978. The Court will not again address it at length here.

The authority cited in the prior order, as well as the cases relied upon by defendants in their brief in support of this motion, indicate that a causal connection between work and injury must exist before compensation laws apply. The mere coincidence that the injury for which suit is brought is the same type as that to which the plaintiff exposes herself at work is insufficient to demonstrate this causal nexus. Even when the individual sued is fortuitously the plaintiff's employer, the causal connection is still absent. Neither coincidence establishes that the injury has been suffered as a causal result of the plaintiff's employment.

Demonstrative examples are appropriate. Under defendants' reasoning, a public utility worker who coincidentally installs gas furnaces could not sue the utility at common law if his own furnace exploded at home. A worker at a televison manufacturer similarly could not sue that company if his defective television exploded at home. So, too, a nuclear worker would be unable to sue her employer for radiation injury suffered on vacation by driving through a spill of uranium by that company on a public highway. In each example, the causal nexus is absent. The Court need look no further than defendants' own authority to reject the proposition asserted.

Defendants' second argument is built upon the first. Defendants contend that when the coincidence of defendant and injury exists, a plaintiff has the burden of pleading and proving affirmatively that the causal connection does *not* exist. Because the plaintiff would be entitled to a presumption under the compensation laws that the injury arose out of and during the course of employment in an action brought under that act, it is argued that defendants are entitled to the protection of that presumption in an action not brought on compensation laws. Because in Oklahoma a compensation plaintiff may arguably prevail without showing specifically how the injury was work-related, plaintiff may not bring a common law action unless he proves that the injury was not work-related. In situations like the instant case, where no jury finding establishes the fact either way, a plaintiff may not recover at common law, even though defendant might otherwise be strictly liable without any such showing.

Quite simply, there is no authority that supports such a proposition. Defendants have not cited any authority, nor has the Court found any. Defendants' citation to Kansas law and *Wilburn v. Boeing Airplane Co.*, 188 Kan. 722, 366 P.2d 246 (1961), is unavailing. There is

nothing in Kansas law that would compel a plaintiff to prove as an element of his common law claim the non-existence of an affirmative defense available to the defendants. Adoption of the argument would constitute a new horizon in the traditional field of tort litigation.

Application of this proposition also frustrates application of strict liability in typical product liability suits for an entire class of plaintiffs who have an employment relationship with the defendant. In the example above, an administrator for the deceased utility worker would be required to prove that the furnace did not explode as a part of his employment. Again, lest the Court overindulge in hypothetical example, twenty nuclear workers exposed to plutonium away from work while shopping individually in a store could not recover unless they demonstrated how the plutonium got into the store, even though no evidence is introduced which of the twenty, if any, brought plutonium into the store. Non-workers could recover on strict liability grounds without any similar showing.

Reason does not support segregation of these particular plaintiffs from the rest of the world merely because of the fortuity of their employment relationship to a defendant and the similarity of the hazard involved. The Oklahoma compensation statute expressly and unequivocally restricts the operation of any presumption to actions brought *under* that act. Quite clearly, the workmen's compensation bar is an affirmative defense that the employer must raise in each of the hypothetical examples noted above. Defendants cannot here place on plaintiff the burden of proof of the non-existence of facts supporting their defense.

Contrary to the defendants' argument, and as they well know, the compensation issue was indeed submitted to the jury, and the factual finding was against the defendants. It was the Court's determination that a formal

workmen's compensation issue could not be presented to the jury without an involved dissertation on the nature and purpose of compensation laws, their difference from traditional common law tort claims, and the real possibility such an instruction would confuse the jury and thwart the process of justice. Actual submission was made to the jury by submission of the specific factual issue of whether Silkwood intentionally took plutonium to her apartment. Here the jury found the defendants' evidence insufficient to establish by a preponderance of the evidence that Silkwood intentionally took plutonium to her apartment. The evidence that Silkwood might have accidentally taken the plutonium home on her person or clothing was weak, speculative, and contradicted by virtually all defendants' own evidence. The Court could not properly submit a question with no evidentiary foundation to the jury. Nothing more was required to avoid the defense that compensation laws barred the instant claim.

Defendants argue that if Silkwood's contamination took place during the collection of a urine sample, then it took place during the course of her employment. This again merely begs the question on which defendants had the burden of proof. The only evidence that the contamination so occurred was Silkwood's own speculation. That alone was insufficient.

Indeed, in the Rule 51 conference this Court specifically asked defense counsel whether they contended the plutonium moved into Silkwood's apartment inside a contaminated urine kit. This Court was considering whether to send that issue to the jury, but upon counsel's unqualified negative response the Court refrained. Defendants did not then object and the Court will not now hear them raise this claim by indirection after an adverse verdict. See *United Steelworkers v. CCI Corp.*, 395 F.2d 529 (10th Cir. 1968).

CHALLENGES TO THE VERDICT

Defendants here contend that the verdict in this case is both excessive and contrary to the weight of the evidence and accordingly should be set aside. On the latter ground, defendants argue that a verdict must be granted for defendants.

The question whether a new trial is proper because the verdict is contrary to the weight of the evidence is normally a question of fact and is addressed to the sound discretion of the trial court. *Champion Home Builders v. Shumate*, 388 F.2d 806 (10th Cir. 1967). On a motion for new trial, the Court should view the verdict in the overall setting of the trial, consider the character of the evidence and the relative complexity of the legal principles which the jury was bound to apply. The Court should abstain from interfering with the verdict unless it is quite clear that the jury has reached a seriously erroneous result. *Bevevino v. Snydjari*, 574 F.2d 676 (2d Cir. 1978). Where the trial court is of the opinion that a new trial is proper, however, the remedy should be granted. *Holmes v. Wack*, 464 F.2d 86 (10th Cir. 1972).

From examination of the record and familiarity with the evidence at trial, the Court finds that the evidence was more than adequate to sustain the verdict reached. Defendants' argument that the only evidence in the record supports the view that Silkwood intentionally removed the plutonium is unavailing. Jurors are the exclusive judges of credibility and of the weight to be given the testimony of any witness. *Boehm v. Fox*, 473 F.2d 445 (10th Cir. 1973); *Jaeco Pump Co. v. Inject-O-Meter Mfg. Co.*, 467 F.2d 317 (10th Cir. 1972). The jurors were free to reject that evidence altogether, or find it speculative and unconvincing. With the burden of proof on that issue, defendants then fail in their affirmative defense. Similarly, defendants unconvincingly

argue that the evidence conclusively shows that Silkwood's intentional removal of plutonium was the most probable of all possibilities. This misconstrues the nature of defendants' burden.

Defendants had the burden of proving their defense as a true fact by a preponderance of the evidence—that is, that it was likelier true than not true. Defendants' argument subtly misdirects the analysis and finds that burden satisfied if one possibility is likelier true than is another possibility, regardless whether it is likelier true than not true. Needless to say, one improbable impossibility may be more probably true than another, while both are so improbable that neither is established as likelier true than not. Defendants' proposition would embrace within jury findings the potential for total speculation and conjecture.

A trial judge has the chief responsibility for passing on the question as to whether a new trial ought to be granted on the ground of excessive or inadequate damages. *Ryen v. Owens*, 144 U.S.App.D.C. 332, 446 F.2d 1333 (D.C.Cir. 1971). A verdict should not be set aside unless the Court is convinced that it is the result of bias, prejudice or passion. *Metcalfe v. A. T. & S. F. Ry.*, 491 F.2d 892 (10th Cir. 1974); *Wells v. Colorado College*, 478 F.2d 158 (10th Cir. 1973).

It is this Court's considered opinion that the verdict in this case does not fall within that category. Nor is the verdict beyond all reason or so great as to shock the Court's conscience. See *Williams v. Steuart Motor Co.*, 161 U.S.App.D.C. 155, 494 F.2d 1074 (D.C.Cir. 1974). While the award of actual damages in this case was high for the short period involved, and perhaps greater than this Court would have himself imposed, it is not so clearly excessive that the Court finds it an injustice or unacceptable based upon the evidence.

With the evidence and all reasonable inferences to be drawn therefrom viewed in the light most favorable to plaintiff, see *Ahern v. Veterans Administration*, 537 F.2d 1089 (10th Cir. 1976); *Joyce v. Davis*, 539 F.2d 1262 (10th Cir. [illegible] the record contains substantial evidence to support the jury verdict for actual damages. So viewed, the record presents a Kafka-like picture of a young woman who was contaminated by an originally unknown amount of plutonium that was inexplicably found in her apartment. She was fearful of a slow death from cancer, became hysterical at times, and approached a nervous breakdown as she became the focus of federal agency and industry investigation into the incident. Because of the uniqueness of her injury, she was compelled to place herself for medical care in the custody of those whom she distrusted. The mental anxiety associated with this experience was for the jury to measure, together with whatever physical injury the jury found she suffered.

Where experts are in sharp disagreement over the injuries sustained, the Court must not try the case de novo. *Volis v. Puritan Life Ins. Co.*, 548 F.2d 895 (10th Cir. 1977). This Court is uninclined to stray into the province of the jury and examine their finding based upon conflicting evidence. See *United States v. 79.95 Acres of Land, Rogers County, Oklahoma*, 459 F.2d 185 (10th Cir. 1972).

The Court is even less inclined to view the punitive damages awarded in this case as excessive. Defendants argue that the Tenth Circuit has held a ratio of punitive to actual damages of 11 to 1 as excessive, and that *a fortiori*, the ratio of 20 to 1 in the instant case is excessive. This argument is entirely misplaced. Reliance on *Dearmore v. Gold*, 400 F.2d 887 (10th Cir. 1968), fails to note that it was a per curiam opinion setting aside a damage award and remanding for a new trial as both parties desired. A jury had awarded only $841.54

actual damages, where uncontroverted evidence established damage at more than $700, without pain and suffering, and established unquestioned pain and suffering and probable future medical expense. Punitive damages of $10,000 were awarded. Without delving into the jurors' thinking, but noting the appellee's argument that the jury awarded out-of-pocket expenses as actual damages, and pain and suffering and future expenses as punitives, the Court concluded the fairest disposition to be a new trial.

Indeed, application of a ratio approach to excessiveness expressly contradicts Oklahoma law. Defendants implicitly acknowledge this by quoting *Misco Leasing, Inc v. Keller*, 490 F.2d 545 (10th Cir. 1974)—punitive damages may exceed actual damages as long as the amount is reasonable and bears some relation to the injury inflicted. Defendants' Brief at 29. Defendants' argument that the punitive verdict must bear some relation to the actual damages awarded misreads the quote and contradicts Oklahoma law. A punitive award need *not* bear any necessary relation to the actual damages awarded. *Garland Coal & Mining Co. v. Few*, 267 F.2d 785, 791 (10th Cir. 1959).

By statute, a relationship need only exist between the amount of punitive damages awarded and the *injury* inflicted. Okla.Stat.Ann. tit. 23, § 9. Little imagination is needed to discern the disparity between actual and punitive damages where, for example, a defendant inflicts a very serious injury, but where the suffering from that injury is terminated by an intervening and unforeseeable act of God. Punitive damages would be for intentional infliction of an injury severe enough to cause long term suffering. Punitive damages would only be required to bear a relationship to that injury inflicted, and not to the figure for actual damages that reflect the lesser period for pain and suffering actually experienced.

Defendants additionally argue that no punitive damages were justified on the instant record because no evidence was introduced of any defendants' act toward Silkwood that was reckless, wanton or malicious. This belies the point. Although defendants here disagree, Kerr-McGee had a duty to keep plutonium within their facility. Reckless, willful, and wanton conduct in the operation of the facility so as to permit plutonium to escape into the public domain is evidence of conduct that permitted the infliction of the instant injury to Silkwood. The Court has addressed defendants' contention above that no such duty existed. Defendants' contention that permitting plutonium to escape, without more, cannot be the proximate cause of Silkwood's injury is addressed below.

Plaintiff's evidence established substantial, credible evidence of poor training, poor security, workers who knew of a variety of ways to remove large amounts of plutonium from the facility without detection, workers indifferent to the hazards of plutonium, and much more, all of which tended to establish the propriety of a punitive award. There was conflicting evidence, however subject to credibility tests, of an uninformed or indifferent management. The amount of the punitive award was particularly within the province of the jury to decide in light of the purpose of punitive damages, the character of defendants' conduct, the hazardous nature of plutonium, and defendants' knowledge and state of mind. See Restatement, Torts, § 908(2) com. e at 556-57 (1939). In short, crassness of conduct may govern the amount of award commensurate with a defendant's financial ability.

The Court finds ample evidence in the record, if found credible by the jury, to support a very large punitive award. The Court will not set aside the verdict reached.

In a memorandum overruling defendants' motion to interrogate the jurors post-trial, the Court has already

noted the high caliber and representative characteristics of the individual jurors, as well as their dedication to their duties as jurors. The jury in this case deliberated for four days and once sought guidance from the Court. Neither the verdict's size nor the conduct of the deliberations reflect a passioned or biased view of the evidence or reaction to trial tactics of the competent counsel on either side. Consequently, the Court cannot characterize the verdict as the product of passion, bias or prejudice. Finally, while the amount of the punitive award may have exceeded what the Court would have allowed, it appears to be within the confines of the evidence and the tenets of applicable law. As such it neither represents an injustice nor shocks the conscience of the Court on the instant record.

PUBLICITY

The Court finds no merit whatever in defendants' contention that pre-trial, trial and post-trial publicity deprived these defendants of the opportunity for a fair trial. The Court fails to see the relevance of post-trial publicity to defendants' argument that the trial was less than fair. Defendants cannot maintain that after the trial concluded, the fairness of that completed process, or the deliberations of a jury already discharged, were somehow altered by subsequent statements in the press.

Nor does the Court look favorably on defendants' contention that pre-trial publicity was so pervasive and prejudicial that a fair trial was impossible. The Kerr-McGee defendants themselves urged upon this Court an early trial date, even over the opposition of plaintiff. Defendants expressed their readiness to proceed to trial in early Spring in Oklahoma City, so that the lengthy trial would not have to be delayed until the next available date on this Court's calendar in the Fall. Defendants never mentioned that pre-trial publicity potentially still in the minds of jurors chosen from the panel might prejudice either of the parties. Nor did these defendants

do the obvious if they felt that pre-trial publicity, which was largely four years old, posed a threat to the fairness of the proceedings. Fully aware of the publicity generated by the case, both locally and nationwide, defendants never moved for a change of venue for trial and never communicated to the Court serious apprehension about the pre-trial publicity concerning the case. Indeed, it was the sense of the Court that defendants were well pleased with the Oklahoma City trial situs.

Furthermore, the Court permitted an extensive voir dire of the jury panel that lasted from early morning until late that same evening. Counsel were permitted to conduct their own voir dire and inquire into each potential juror's familiarity with the case, his or her knowledge, state of mind, and personal predilections, if any. Never once prior to or during the trial did counsel suggest the possibility that pre-trial publicity posed a threat to the fairness of the trial. Defendants' desire to raise this issue after an adverse verdict detracts from the seriousness with which the Court considers it.

This Court also finds no merit in defendants' argument that publicity of this trial and other nuclear accidents, most notably the incident at Three Mile Island, prevented a fair trial. Again, this Court repeatedly admonished the jury on a daily basis to disregard any debate or discussion of other events or issues bearing generally on nuclear power. This Court specifically addressed the Three Mile Island incident and cautioned the jury that it had nothing to do with the facts and issues before them. The jury was admonished not to view the movie "China Syndrome" and not to let any aspect of the nuclear debate affect their deliberations on the narrow issues of this trial.

The Court has no reason to believe that its admonitions were not heeded. Upon the Court's inquiry, the jury forewoman indicated that no extraneous information or

issues entered into the jury's deliberations. The Court early in the trial questioned two jurors regarding possible friendships with Kerr-McGee employees not revealed during voir dire. The Court then learned that one juror even refused to let a friend approach her whom she erroneously believed had begun work for Kerr-McGee after the trial commenced. The Court finds its admonitions sufficient to preserve in these jurors that objective and impartial state of mind necessary for a fair trial.

Quite simply, this Court presided over this trial and was fully aware of the nature and extent of news coverage in the Oklahoma City area. The Court simply disagrees with defendants' rather flamboyant description of the public interest in this trial. The press did report certain items of evidence not admitted before the jury which held prejudicial value for the defendants. The press also reported on numerous occasions, however, the parade of information regarding defendants' contentions on evidence relating to sex and drugs, which was information highly prejudicial to the plaintiff.

Defendants' suggestion that this Court poll the jury after each news report of a nuclear incident without even the remotest connection or relevance to the issues in this case or the evidence being placed before the jury is unrealistic. Although the news accounts may have had bearing on the general national debate upon the potential benefits and costs of nuclear power, the jury was cautioned repeatedly during voir dire, presentation of evidence, and again in the Court's instructions that any specific aspect of the public debate on nuclear power must not be considered by them. This Court's inquiry of the jury forewoman shortly after the trial's conclusion dispels any notion that prejudicial effects of publicity entered into the jury's deliberations. The few statements of individual jurors and alternates that appeared in local Oklahoma City newspapers immediately

after the trial corroborate this view. This Court is convinced that media publicity had no effect on the proceedings of the trial.

OTHER ARGUMENTS

Although the Court will not address each issue raised by defendants, additional comment is necessary on a few points. Defendants again raise their contention that the scope of the evidence was improper, and that the Court erred by excluding their evidence on numerous matters regarding Silkwood's sexual involvements, use of drugs, and purported suicide attempts. The Court entered in the record a memorandum order on this point, which adequately deals with the issue. In their arguments defendants never addressed the problem that Rule 404, Federal Rules of Evidence, rendered this evidence largely inadmissible, without regard to its tremendously prejudicial value upon which this Court chose to exclude it under Rule 403, Federal Rules of Evidence.

The parties should also consult *Hackbart v. Cincinnati Bengals, Inc.*, 601 F.2d 516 (10th Cir. 1979), wherein a professional football player sought damages for a "late hit" by an opposing player which broke his neck. Defendants introduced evidence tending to show that plaintiff himself was a "dirty player" who had indulged in physical violence beyond that permitted by the rules. The Circuit held the evidence irrelevant and improperly admitted by virtue of Rule 404's proscription on character evidence used to show conduct.

Defendants again argue that evidence of their negligent or reckless handling of plutonium in the facility was irrelevant to the issues in the case. Defendants refuse to acknowledge that evidence of defendants' lack of due care regarding security, training of workers, or their indifference to the hazards of plutonium and the safety of their employees, renders it more likely that the instant

plutonium escaped from the facility because of defendants' ordinary or gross negligence. The evidence was, therefore, probative and competent circumstantial evidence of culpable conduct that proximately caused Silkwood's injury.

Hackbart, supra, is not to the contrary. The Court there found irrelevant evidence of extraneous acts of football violence in an intentional tort case. Once the Court rejected the applicability of the assumption of the risk defense, evidence that football was a commonly recognized "violent game" did not have any probative value on defendants' liability for a player's admittedly intentional striking of plaintiff.

Defendants also argue that they are entitled to a judgment or a new trial because no evidence establishes any act which proximately caused Silkwood's injury. Defendants must concede that but for the escape of plutonium from their facility, this injury would not have occurred. Nor may they dispute that radiation injury to individuals in their homes was a foreseeable result of the escape of plutonium barely visible to the naked eye. Defendants' theory of proximate causation would presumably require evidence that their agent brought plutonium physically into the apartment. In strict liability "dangerous animal" cases this would require a defendant to be responsible for moving the animal physically to a plaintiff's location before liability would attach. This is not the law. *City of Magnum v. Brownlee,* 181 Okl. 515, 75 P.2d 174 (1938) (bear escapes from cage); see also Foster and Keeton, *Liability Without Fault in Oklahoma,* 3 Okla.L.Rev. 1, 11-16 (1950).

Furthermore, defendants' argument is another attempt to shift the burden to plaintiff to prove the absence of Silkwood's assumption of the risk to bar a strict liability claim, or the non-existence of an intervening cause sufficient to cut off the chain of causation requisite for a

negligence claim. This, too, is not the law. Indeed, intervening acts do not bar liability under the Restatement provision, except possibly for the intentional acts of a third party. See Restatement (Second) Torts, § 522 (1976).

The difficulty of proving causation in radiation injury cases has been the subject of much legal debate, but only in the context of latent injuries where a plaintiff with cancer sues another for exposures occurring long previously. See, e.g., Keyes and Howarth, *Approaches to Liability for Remote Causes: The Low Level Radiation Example*, supra at 545-46; Finks, *Radiation Injuries Compensable Under Workmen's Compensation*, 41 B.U.L.Rev. 183 (1961); Estep, *Radiation Injuries and Statistics: The Need for a New Approach to Injury Litigation*, 59 Mich.L.Rev. 259, 281-304 (1960); Note *Problems of Tort Liability Arising from Nuclear Reactors*, 27 U.Cin.L.Rev. 415, 418 (1958). That problem is admittedly not present here. Plutonium from the defendants' facility was found in Silkwood's apartment where it exposed her to radiation and was proximately tied by evidence to her emotional distress. The question of proximate causation was properly submitted to the jury.

Defendants lastly raise the question of misconduct by the plaintiff's lead trial counsel that allegedly deprived them of a fair trial. This was a very long, hotly contested lawsuit wherein the parties pursued the litigation perhaps as much out of emotional belief in various principles as they did out of interest in this specific factual situation. At times the patience and tempers of lawyers wore thin, as would be expected. There were infrequent instances, perhaps, of excesses that ought not to have occurred. Mr. Spence's remark to a defense witness, a long-time government investigator who interpreted the statement as designed to intimidate him, was unfortunate. The Court has no doubt, however, that this par-

ticular witness would not have been intimidated by a private lawyer's casual remark during a trial recess. Mr. Phillip's demeanor during cross-examination exhibited not the slightest feature of intimidation, as the Court would anticipate from an experienced man in his profession.

The Court need not address other alleged instances of improper conduct. Defendants themselves began this case with an opening statement that informed the jury that plaintiff's lead counsel was skilled in the art of "invading the vaults" of large corporations and insurance companies and "denuding them" of their money. Defendants closed with argument directly contradicting the Court's instructions and informing the jury that punitive damages should be considered as a reward to plaintiff's counsel and the estate they represented. In direct violation of court orders, defense counsel also brought to the jury's attention a matter whose exclusion this Court had ordered both several times from the bench and once by way of written memorandum inserted in the record and distributed to counsel. Neither plaintiff nor defendants are entitled to claim pristine innocence in their courtroom conduct in this case.

Invariably when counsel become so involved in matters of principle so strongly held by clients, better professional judgment in questions of fact and law may be overcome by momentary impulse. The result is not always a salutary one in strict terms of trial performance, but lengthy, complicated trials with much at stake are difficult to present without at least occassional obstructions of professional perspicacity. This is especially true when the litigation is motivated by emotionally-fueled devotion to a client's principled position, which might perhaps cloud a more objective perception of the case.

This Court presided over the trial and did its utmost to keep prejudicial matters and conduct from the jury.

The Court undertook appropriate action to erase whatever possible prejudicial impact might have been created whenever a counsel's conduct or tactics approached unfairness or impropriety in the Court's opinion. The Court is quite confident that these rare occurrences during the course of eleven weeks of trial did not have any ultimate impact on the jury in this case. This was not a perfectly tried case by either side, but neither the federal rules nor the requirements of due process dictate as much. It was the Court's apprehension during the trial and reflected judgment now that this case, although having more evidentiary questions than any the Court has previously tried, more adversariness than customarily occurs in a normal civil case, and inordinate length of trial time, was well and competently briefed, tried and argued by exceedingly competent counsel for both sides. This Court maintained close scrutiny over the progression of this litigation and feels satisfied that the interests of all parties were adequately protected. The argument that conduct of plaintiff's counsel prevented a fair trial in this action is without merit.

The Court also finds no merit to the remaining contentions of defendants, many of which this Court has already ruled and commented upon during the preparation of this case for trial or during the trial itself.

IT IS THEREFORE ORDERED that the motions of defendants for a judgment notwithstanding the verdict or for a new trial are hereby denied.

APPENDIX

THE COURT'S INSTRUCTIONS

INSTRUCTION NO. 1

MEMBERS OF THE JURY:

Now that you have heard the evidence and the arguments, the time has come to instruct you as to the law governing the case.

Although you as jurors are the sole judges of the facts, you are duty bound to follow the law as stated in the instructions of the Court and to apply the law so given to the facts as you find them from the evidence before you.

If, in these instructions, any rule, direction or idea be stated in varying ways, no emphasis thereon is intended by me and none must be inferred by you. For that reason, you are not to single out any certain sentence or any individual point or instruction and ignore the others, but you are to consider all the instructions as a whole, and you are to regard each instruction in the light of all the others.

You are not to be concerned with the wisdom of any rule of law. Regardless of any opinion you may have as to what the law ought to be, it would be a violation of your sworn duty to base a verdict upon any other view of the law than that given in the instructions of the Court.

INSTRUCTION NO. 2

This is an action to recover for alleged personal injuries arising out of the radioactive contamination to which plaintiff's decedent, Karen Silkwood, was exposed in November, 1974. Karen Silkwood was an employee of defendant Kerr-McGee Nuclear Corporation and worked at that defendant's fuel rod fabrication plant—the Cim-

arron facility. She was exposed to plutonium, a radioactive substance, on three consecutive days—November 5th, 6th and 7th, 1974. Plutonium contamination was found in her apartment on November 7th.

It is stipulated by the parties that the plutonium that caused Silkwood's contamination originally came from the Cimarron facility, and plaintiff alleges that the operation of a nuclear fuel rod fabrication plant is an ultrahazardous or abnormally dangerous activity. Plaintiff therefore alleges that Kerr-McGee Nuclear Corporation is strictly liable to compensate plaintiff for his decedent's injuries and damages caused by the escape of this plutonium from the facility. Plaintiff claims that Silkwood suffered injuries, including radioactive contamination of her internal organs, tissues and genes, and that she experienced mental and emotional trauma, suffering and anguish.

Plaintiff also alleges Kerr-McGee Nuclear Corporation was negligent with respect to Karen Silkwood in the following respects:

1. Failure to inform itself of the full extent of the hazardous nature of plutonium.
2. Failure to inform and train its employees regarding the hazardous nature of plutonium.
3. Failure to protect employees and others against hazards created by the escape of plutonium from the plant.
4. Failure to employ an adequate number of trained and qualified health and safety personnel.
5. Failure to employ adequate security procedures, equipment and personnel to prevent escape of plutonium.
6. Failure to take those steps reasonably necessary to avoid contamination incidents, to minimize

harm from incidents that did occur, and to account for all plutonium in its possession so that escape of the substance could be immediately detected and prevented.

Plaintiff also alleges that Kerr-McGee Nuclear Corporation is the mere instrumentality or alter ego of its parent corporation, Kerr-McGee Corporation, and that the parent corporation may therefore be held liable for the damages that plaintiff seeks.

Plaintiff claims actual damages in the amount of $1,505,000.00 for actual bodily injury and for injury to property. Plaintiff further claims the conduct of defendant companies was so grossly negligent, malicious, and wantonly reckless toward Silkwood and others as to entitle him to recover $———— in exemplary damages from defendants.

Defendant Kerr-McGee Nuclear Corporation denies that it was negligent in any manner in its operation of the facility, and further denies that any conduct attributable to it caused the escape of plutonium from the facility and the contamination of Karen Silkwood. The Nuclear Corporation further raises an affirmative defense that Silkwood herself intentionally carried the plutonium in question to her apartment and there contaminated herself either inadvertently or intentionally. The Nuclear Corporation therefore denies its liability for any damages allegedly caused to Silkwood.

Defendant Kerr-McGee Corporation denies that the Nuclear Corporation is its alter ego or a mere instrumentality. Kerr-McGee Corporation alleges that the Nuclear Corporation is a separately maintained corporate entity. Kerr-McGee Corporation therefore denies liability for any torts, or wrongs, committed by its subsidiary corporation.

Both defendant corporations deny the nature and extent of all personal damages alleged by plaintiff; except the

parties have stipulated that the amount of property damage suffered by plaintiff's decedent from contamination to personal property in her apartment is $5,000.00.

The above and foregoing are the claims of the parties herein, and are not to be construed by you as evidence in the case.

INSTRUCTION NO. 3

The burden is on the plaintiff in a civil action such as this to prove every essential element of his case by a preponderance of the evidence.

Similarly, if you find that plaintiff has proved all elements of his case, then the defendants have the burden to prove by a preponderance of the evidence their affirmative defense of self-contamination.

If the proof fails to establish any essential issue in a case upon which the burden of proof is on the asserting party, then such party must lose on that issue.

To "establish by a preponderance of the evidence" means to prove that something is more likely so than not so. By a fair preponderance of the evidence is not necessarily meant the greater number of witnesses, or the length of the presentation of testimony, but rather, the greater weight of the evidence taken together—that is, that evidence upon any question or issue which convinces you most strongly of its truthfulness. If the evidence on an issue is equally balanced, then there is no preponderance and the party having the burden to establish that issue must fail.

INSTRUCTION NO. 5

Burden of proof means burden of persuasion. A party who has the burden of proof on an issue must persuade you that his claim regarding that issue is more probably true than not true. In determining whether he has

met this burden you will consider all the evidence, whether produced by plaintiff or defendants.

For plaintiff to recover against Kerr-McGee Nuclear Corporation, the burden of proof is on the plaintiff to establish the three elements of his case as listed in Instruction No. 7.

For plaintiff to recover against Kerr-McGee Corporation, plaintiff has the burden of proof to establish these same three elements. Additionally, plaintiff has the burden of proof to establish that Kerr-McGee Nuclear Corporation is the instrumentality of its parent corporation, as defined in a separate instruction.

Finally, the plaintiff has the burden of proof to establish the nature and/or extent of the claimed personal injuries and property damage to plaintiff's decedent, and generally the amount of actual and punitive damages, subject to your final power to determine the amount of dollar damages in one or both categories of damages.

If you find these elements established, then the burden of proof is on defendant Kerr-McGee Nuclear Corporation to establish that Karen Silkwood took the plutonium from work to her apartment where she was allegedly injured.

INSTRUCTION NO. 6

You are instructed that plaintiff is relying in this case on a theory of liability against defendants that is known as strict liability. Such theory of liability is one that comes about by operation of law through public policy for the protection of people who live in a society where they may be affected by someone else's operation of an ultra-hazardous or abnormally dangerous activity.

The rule of strict liability applies only to harm that is within the scope of the abnormal risk that is the basis of the liability. The liability arises out of the abnormal

danger of the activity itself and the risk it creates of harm to those in the vicinity. In the case at bar the activity would be the handling and processing of plutonium, one of the most dangerous of substances. The rule is founded upon a policy of law that imposes upon anyone, who for his own purpose creates an abnormal risk of harm to his neighbors, the responsibility of relief against that harm when it does in fact occur. The defendants' enterprise, in other words, is required to pay its way by compensating for the harm it causes because of its special, abnormal and dangerous character. The liability is not in any way based upon any intent of the defendant to do harm to the plaintiff or to affect his interest—nor is it based upon any negligence either in attempting to carry out the activity itself in the first instance, or in the manner in which it is carried on. The defendant is held liable although he has exercised the utmost care to prevent the harm to the plaintiff that has ensued from the dangerous substance.

INSTRUCTION NO. 7

You are instructed that the Court finds as a matter of law that the operation of the Cimarron facility by defendant Kerr-McGee Nuclear Corporation constitutes an abnormally dangerous activity. Therefore, if you find that the damage to the person or property of Karen Silkwood resulted from the operation of this plant—if that damage was caused by the escape of plutonium from that plant—then defendant Kerr-McGee Nuclear Corporation is liable for this damage, unless defendant prevails on its affirmative defense set forth below.

As the elements of his case then, plaintiff must establish by the evidence:

1. That plutonium escaped from the custody of the Kerr-McGee Nuclear Corporation's Cimarron facility;

2. The plutonium that so escaped caused Karen Silkwood actual injuries to her person or property; and

3. The nature and extent of the injuries.

As stated in the stipulation of fact, element number 1 above has been agreed to and admitted by the parties, leaving only elements 2 and 3 to be established by the evidence.

Once these facts are established, liability for this injury exists. This is true without regard to the degree of care with which defendant Kerr-McGee Nuclear Corporation carried on its activities at the Cimarron facility.

The liability of defendants, or either of them, under the doctrine of strict liability, is, of course, subject to the jury's determination of the self-contamination defense of Kerr-McGee as set forth in the following paragraph.

You are further instructed that a verdict for both defendants must result if Kerr-McGee Nuclear Corporation has proved by a preponderance of the evidence its affirmative defense that Silkwood intentionally removed plutonium from the Cimarron facility, and as a result thereof negligently or intentionally contaminated herself.

INSTRUCTION NO. 8

The fact that plaintiff's legal theory of liability or recovery against defendants Kerr-McGee Corporation and Kerr-McGee Nuclear Corporation is in legal parlance or language referred to as "strict liability," does not mean in any sense that plaintiff can recover because he files a lawsuit and claims strict liability is the basis of his legal theory.

INSTRUCTION NO. 9

The plaintiff's other claim of liability of the defendants in this case is negligence.

As used in these instructions, negligence is the lack of that degree of care as would be exercised by a very careful, prudent and competent person under the same or similar circumstances. It is the failure of a person to do something that a very careful or prudent person would do, or the act of a person in doing something that a very careful or prudent person would not do, measured by all the circumstances then existing.

To constitute actionable negligence three elements are necessary and must concur. First, the existence of a duty on the part of the party charged; second, failure of said party to perform that duty; and third, injury to the party charging the negligence and which proximately results from such failure.

A proximate cause of an injury is a cause which in direct, unbroken sequence produced the injury. It is one without which the injury would not have occurred.

Because the operation of the Cimarron facility by the defendant Kerr-McGee Nuclear Corporation constitutes an abnormally dangerous activity, a duty of utmost due care is placed upon Kerr-McGee Nuclear Corporation by the law.

By "utmost due care" the law means that the defendant is required to exercise a degree of caution that corresponds to the riskiness of the activity. For an abnormally dangerous activity every known foreseeable precaution must be taken.

In the context of the evidence in this case on the issue of negligence, you may find that escape of plutonium from the Cimarron plant caused Karen Silkwood's injury, without finding that it was specifically foreseeable that Karen Silkwood in particular would be injured by an escape of plutonium. It is enough for proximate cause for you to find that it was foreseeable that the escaped plutonium would injure anyone who would be exposed to it.

INSTRUCTION NO. 10

Evidence has been admitted in this case regarding the existence of government standards for the operation of the Cimarron facility and the accounting for plutonium within the facility. You are instructed that these standards may be considered by you as evidence of expert opinion on what constitutes reasonable care on the part of defendant Kerr-McGee Nuclear Corporation. You may consider this evidence as any other expert testimony and it is to be tried by the same tests. It should receive such weight and credit as you, the jury, deem it entitled, when viewed in connection with all the other facts and circumstances of the case. Its weight and value are questions for you to decide.

You may consider compliance with these standards as evidence of the exercise of reasonable care by Kerr-McGee Nuclear Corporation and to negative a finding of the conduct necessary to establish a basis for exemplary damages. Failure to comply with these standards, however, may be considered by you as negligence per se, that is, such conduct in and of itself shall be considered by you as negligence, or the failure to exercise reasonable care. Either a single incident of gross and/or wanton disregard, or a series of acts of negligence, per se, may also be considered in judging conduct necessary to impose exemplary damages.

You are instructed, however, that you are not bound by these standards. Your duty is to determine what constitutes the exercise of reasonable care in handling plutonium, or the existence of reckless and wanton conduct, in light of the physical characteristics of that material and the risks associated with it.

INSTRUCTION NO. 11

Evidence has been admitted in this case regarding the existence of government standards for the acceptable

levels of exposure to radiation permitted in such facilities in regard to plant safety and evaluation of the nature and extent of personal injury. You are instructed that these standards may be considered by you as evidence of expert scientific and medical opinions on what levels of exposures may result in actual physical injuries, of whatever severity, to persons who work in such facilities. You may consider this evidence as any other expert opinion, and you should give it such weight and credit to which you deem it entitled, when viewed in connection with all other facts and circumstances.

You are instructed, however, that you are not bound by these standards. Compliance with such standards does not necessarily mean injury cannot occur for which liability may be imposed. Your duty is to determine according to your own best judgment, in light of all the evidence, the nature and extent of the actual injuries suffered by Karen Silkwood, if any, and the emotional suffering and anguish proximately caused thereby, if any.

INSTRUCTION NO. 12

One of the defendants' principal contentions and defense in this case to both negligent conduct or conduct meriting an award of exemplary damages is that Kerr-McGee Nuclear Corporation has always, and in particular at the time of events in this case, been in substanial compliance with its license and AEC regulations pertaining to its Cimarron plant.

You are instructed that substantial compliance with the license conditions imposed by the Atomic Energy Commission in the defendants' license and the regulations of the Atomic Energy Commission as they pertain to Karen Silkwood and her exposure to plutonium on November 5, 6 and 7, 1974, may be considered by you in determining whether or not the defendant, Kerr-McGee Nuclear Corporation was negligent in its plant operations, directly causing the claimed injuries to Silkwood.

You may further consider compliance or substantial compliance in determining whether exemplary damages should be awardable against the defendants, or either of them, and the amount thereof.

As stated before in these instructions on the effect of government standards, such compliance would not necessarily preclude a finding of blameworthy conduct under all the facts and circumstances shown by the evidence.

INSTRUCTION NO. 13

Plaintiff was permitted in his case in chief to present evidence of several statements of Karen Silkwood and evidence relating to her activities from September to November, 1974. This evidence was admitted primarily through the testimony of Jean Jung, whose deposition was read to you, the testimony of union officials Steven Wodka and Tony Mazzochi, and the playing of certain tape recordings of Karen Silkwood's conversations and scientific lectures that Silkwood attended. Slides of Silkwood's notebooks containing her observations of events and conditions at the Cimarron facility were displayed, and the original notebooks were admitted as exhibits for you to examine.

This evidence was comprised of Silkwood's statements to AEC investigators, union officials, and her own allegations of unsafe working conditions at the plant, and purported falsification of quality assurance records for fuel rod manufactured at the plant. It was *not* admitted to prove, and must *not* be considered by you as evidence of the conditions or events at the Cimarron facility they purport to describe. The truth or falsity of Silkwood's allegations or charges is not in issue in this case.

This evidence was introduced solely to show Silkwood's knowledge and state of mind at the time the statements were made or the events transpired. This evidence must be considered by you solely in this regard.

Substantive evidence of conditions at the facility was presented by plaintiff through other evidence—witnesses who testified first hand as to what they observed at the plant or knew of their own knowledge and through official records of the facility that reflect actual events or conditions at the plant. You the jury must rely solely on that evidence, and the evidence of the defendants that may rebut or contradict it, to resolve the issue before you of whether plutonium escaped from the facility by reason of the negligence of defendant Kerr-McGee Nuclear Corporation, and thereby injured Silkwood.

The evidence of Silkwood's statements and allegations is before you solely for your consideration regarding Nuclear Corporation's affirmative defense in this case. Both defendants contend that Silkwood intentionally removed plutonium from the Cimarron facility to contaminate urine samples she voided at home. As indicated elsewhere in these instructions, the burden is on the defendants to prove this fact by a preponderance of the evidence. The above-mentioned evidence may be considered by you in your determination of Silkwood's state of mind, motivation or intentions to aid you in deciding whether or not Silkwood intentionally removed plutonium from the facility. In this regard, it is not material whether Silkwood's statements, allegations and beliefs were, in fact, true or false. What Silkwood believed and felt was true, however, is material in your determination of her motivation and intentions that might lead to certain conduct. This evidence is admitted solely for your consideration of Silkwood's state of mind or intentions, to aid you in determining whether it is likelier than not that Silkwood intentionally removed plutonium from the facility.

INSTRUCTION NO. 14

The Court has admitted certain evidence in this case to show the motivation, the intent or the credibility of

various parties. Among these is plaintiff's Exhibit 307—a list of questions submitted by Kerr-McGee Nuclear Corporation to its Cimarron facility employees on or about late December, 1974, and early January, 1975. This exhibit has been admitted for the sole purpose of showing Kerr-McGee Nuclear Corporation's state of mind as to its employees, their association with the Oil, Chemical and Atomic Workers Union, and problems arising out of its plant operations prior to that time, and particularly in the last half of the year 1974. You are to consider this exhibit for no other purpose.

INSTRUCTION NO. 14a

The Court reminds you that plaintiff's Exhibits 87, 93, 97, 99 and 114 were admitted, even though they constitute hearsay, as providing background information pertinent to the Oil, Chemical and Atomic Workers Union's activities and interest in the Cimarron facility, and they are not to be considered as evidence of the truth of the matters set forth in the exhibits.

INSTRUCTION NO. 15

The plaintiff in this action was permitted to demonstrate in his case in chief evidence of incidents at the Cimarron facility occurring prior to the death of Karen Silkwood that might show or tend to show the alleged carelessness or negligent behavior on the part of the defendants or their employees in operation of the plant. You, the jury, are instructed that this evidence was admitted for the purpose of determining Kerr-McGee Nuclear Corporation's knowledge of, and attitude toward, any alleged defective, unsafe or hazardous working conditions in the plant. You may consider such incidents and such knowledge, if any, in your determination of whether to award plaintiff punitive damages against the defendants, as elsewhere instructed. This evidence was also admitted to aid you in deciding whether it is more likely

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than not that negligent conduct of either defendant caused the escape of plutonium from the Cimarron facility and thereby caused, or contributed to cause, Karen Silkwood's injuries, if any.

Evidence of incidents in the plant occurring after Silkwood's death was also admitted which might show or tend to show alleged careless or negligent conduct on the part of the defendants or their employees in plant operation. You are instructed that this evidence was admitted solely for the limited purpose of establishing whether a course of conduct existed on the part of the defendants, prior to Silkwood's death and continuing for some time thereafter, from which an inference might be drawn that conditions existed at the Cimarron facility in November, 1974, that might cause or contribute to cause the escape of plutonium that caused Silkwood's injuries, if any. As with any testimony in this case, you may find it either believeable or not, or give it whatever weight you desire. It was admitted solely to aid you in your determination of whether either defendant is liable for injuries to Karen Silkwood, if any, as instructed above.

Such evidence of incidents occurring after the contamination of Silkwood must not be considered by you in assessing the nature and extent of any conduct of Kerr-McGee for which you might determine punitive damages to be awardable in this case.

INSTRUCTION NO. 16

You are instructed that Kerr-McGee Corporation is liable for the damage to the person and property of Karen Silkwood resulting from the activities of the Kerr-McGee Nuclear Corporation at the Cimarron Plutonium Plant if you find that Kerr-McGee Corporation so dominated the management, policies, and finances of the Kerr-McGee Nuclear Corporation so that that corporation had

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no actual will or existence of its own but was only a mere instrumentality of Kerr-McGee Corporation.

In considering the relationship between Kerr-McGee Corporation and Kerr-McGee Nuclear Corporation, you should consider the evidence presented to you in the light of the following factors:

1. The ownership of stock of Kerr-McGee Nuclear Corporation by Kerr-McGee Corporation.
2. The presence on both corporations of the same officers or directors, if any.
3. The financial support, if any, of the Kerr-McGee Nuclear Corporation's operations by Kerr-McGee Corporation.
4. The underwriting of the incorporation and purchase of the capital stock of Kerr-McGee Nuclear Corporation by the parent corporation, Kerr-McGee Corporation.
5. The joint accounting and payroll system, if any.
6. The substantial business contacts and assets, if any, given by the parent corporation to the subsidiary.
7. The control of the nuclear corporation, if any, by the parent corporation.
8. The method of handling the financial statements of the subsidiary in relation to the parent, showing that the subsidiary was treated as a mere part of the parent corporation.
9. Whether Kerr-McGee Nuclear Corporation subsidiary was organized with a grossly inadequate capital structure.
10. Whether the property of the Nuclear Corporation subsidiary is used by the parent, Kerr-McGee Corporation, as its own.

11. Whether the individuals who exercise operating control over the Kerr-McGee Nuclear Corporation subsidiary exercise it in the interest of the parent, Kerr-McGee Corporation.

12. Whether there was a failure to observe the formal requirements attributable to the operations of a subsidiary.

These and other factors may be considered by you in arriving at your conclusion as to whether Kerr-McGee Nuclear Corporation was an independent corporation on the one hand or a mere instrumentality or alter ego of the parent corporation on the other. If you find that the Nuclear Corporation was a mere controlled extension or instrumentality of the parent Kerr-McGee Corporation, then if Nuclear Corporation is liable for any damages in this case, both corporations become equally liable.

If, however, you find that the plaintiff has not proved the above, then you must so indicate on the verdict form. This results in a verdict in favor of Kerr-McGee Corporation, regardless of your decision as to plaintiff's case against Kerr-McGee Nuclear Corporation.

INSTRUCTION NO. 17

At the beginning of this case both the Court and counsel for both parties told you that plaintiff was asking for $1,500,000 actual damages, and the amount of $10,000,000 exemplary or punitive damages, for the injuries alleged to have been inflicted upon Karen Silkwood by defendants. You were questioned by the Court and counsel on your reaction to such amounts of the prayer.

During the course of this trial plaintiff has asked the Court to allow him to amend his complaint to permit plaintiff to recover a larger amount, namely $70,000,000 total, for exemplary or punitive damages.

Federal rules require the Court to liberally allow such dollar amount amendments. Such requests for damages

largely reflect the parties' or the lawyers' desires or opinions on what they want to recover. The Court has withheld any action upon plaintiff's last request because the federal rules also provide that the jury is not bound in any way by the plaintiff's request and may, under the evidence, allower a lesser or greater amount than any request or prayer for damages that a plaintiff may have made. In final essence, amounts of damages must be determined upon the jury's fair and impartial assessment of the evidence in their individual and collective judgments.

INSTRUCTION NO. 18

You are instructed that if you find, under the instructions previously given, that either or both defendants are liable to the estate of Karen Silkwood for any injuries and/or property damage suffered by her prior to her death, then it is your duty to award actual damages.

You are instructed that if you find from a preponderance of the evidence that prior to her death Karen Silkwood suffered any mental pain or anguish by reason of any physical injury suffered, then plaintiff is entitled to recover for the benefit of her estate such sum as you, after a full and fair consideration of all the evidence in this case, shall deem to be a reasonable and fair compensation for such mental anguish and physical pain suffered by Karen Silkwood by reason of her injuries. To award damages for mental anguish and emotional suffering, you must first find by a preponderance of the evidence that Karen Silkwood sustained physical injury from her exposure to plutonium on November 5, 6 and 7, 1974, and that any mental anguish and emotional suffering was proximately caused by such physical injury.

Your verdict for actual damages must include $5,000.00 as the value stipulated by the parties to compensate for property owned by Silkwood on November 7, 1974, and removed from her apartment because of contamination.

Your are further instructed that damages to Silkwood, if any, are limited to those which began on November 5, 1974, and ceased with her death. You are not to consider her death in awarding damages in this action. No damages may be awarded for any injury or physical or mental conditions, if any, which existed prior to November 5, 1974. Nor may you award damages for injuries, if any, that Silkwood would have sustained had she lived beyond November 13, 1974.

In arriving at the amount of your verdict you should consider plaintiff's age, condition of health before and after, and the nature, extent and duration of her injuries. For such items as pain, suffering and mental anguish there is no unit value and no mathematical formula the Court can give you. In this regard you are instructed that no witness is required to testify as to the amount of damages resulting from physical or mental and emotional pain and suffering. Such proof is not required in a court of law. Instead you, as jurors, are entitled to use your own judgment in arriving at a sum which will fairly and adequately compensate for such pain and anguish. The amount to be awarded rests within your sound discretion.

COURT'S NOTE:

During the deliberations of the jury the Court received the following written communication from the jury relative to the meaning of phraseology in an instruction—specifically No. 18. The Court replied with the following supplemental instruction, which is given the designation of Instruction No. 18(a).

INSTRUCTION NO. 18(a)

The Court has received the following written communication from the jury:

"In Instruction # 18, what does physical injury mean?"

In answer to your question, you are invited to review and consider the total evidence in this regard.

Certainly physical injury can include a non-visible or non-detectable injury, and may include injury to bone, tissue, or cells. If a person has suffered physical injury under (on the basis of) expert medical opinion, it is only necessary that a person believe he or she has been physically injured as a basis for mental pain and suffering to occur. It has been admitted in this case by both parties and their expert medical witnesses that radiation had occurred to Ms. Silkwood from plutonium through the impact of alpha particles in her body. The witnesses, however, disagreed on whether or when physical injury occurred and, if so, its nature and extent.

The individual recollection of each juror, and your collective recollection, is invited to a mental review of this evidence. The evidence is too comprehensive, from too many witnesses, and is scattered through the many weeks' record in this case. It should be impossible for the reporter to ascertain or read from the record all the evidence on this issue which he would be required to do if this were possible at this time.

INSTRUCTION NO. 19

If you find for the plaintiff for actual damages to Karen Silkwood, you must then consider whether to award exemplary or punitive damages to the plaintiff. In any action like the one before you, the jury may give damages for the sake of example and by way of punishment, if the jury finds the defendant or defendants have been guilty of oppression, fraud, or malice, actual or presumed. These damages are called in legal parlance exemplary or punitive damages.

The basis for allowance of punitive damages rests upon the principle that they are allowed as a punishment to the offender for the general benefit of society, both as

a restraint upon the transgressor and as a warning and example to deter the commission of like offenses in the future.

Exemplary damages are not limited to cases where there is direct evidence of fraud, malice or gross negligence. They may be allowed when there is evidence of such recklessness and wanton disregard of another's rights that malice and evil intent will be inferred. If a defendant is grossly and wantonly reckless in exposing others to dangers, the law holds him to have intended the natural consequences of his acts, and treats him as guilty of a willful wrong.

To constitute willful or wanton negligence sufficient to justify an award of punitive damages, it is not necessary that there exist ill will toward the person injured, or specific intent to inflict the injury. If an act that caused harm to plaintiff's decedent was the result of, or accompanied with, such gross negligence or reckless disregard of another's rights, manifesting an indifference to the consequences of the act, so that malice may be inferred, then an award of exemplary damages is appropriate.

If you find that the conduct of defendant Kerr-McGee Nuclear Corporation, if any, that caused or contributed to cause Silkwood's alleged injuries, fits within this definition, you may award exemplary damages against that defendant. Any exemplary damages that you award must bear some relationship to the injuries inflicted, but need not bear any relation to the amount of actual damages awarded.

You may consider the financial worth of the defendant against whom such damages are awarded in determining the size of such an award that is proper under the facts of this case. That is, you may consider the wealth of defendant Kerr-McGee Nuclear Corporation in determining what amount of exemplary damages, if you find

them appropriate, is consistent with the general purpose of such an award in deterring the defendant, and others like it, from committing similar acts in the future, and for punishment of the defendant for such acts.

If you have found by a preponderance of the evidence that Kerr-McGee Nuclear Corporation is the mere alter ego of Kerr-McGee Corporation, as elsewhere instructed, then you may consider the combined wealth of both corporations in determining the appropriate size of any such award.

INSTRUCTION NO. 20

In the verdict form, the Court will submit to you several interrogatories or questions. You are to return to court with your answers to these questions, instead of with a general verdict where you, the jury, would simply decide either for the plaintiff or the defendants. Thereafter, and upon the basis of your answers, the Court will enter a judgment for the appropriate party.

These questions represent to you the individual issues presented in this case. They are listed in the order and the manner in which you must address them. The issues before you, as represented by these questions, and the law that controls them, are explained in these instructions.

The first question you must decide represents the affirmative defense of the Kerr-McGee defendants. You must determine whether the defendants have proved by a preponderance of the evidence that Karen Silkwood intentionally removed from work to her apartment the plutonium that caused her contamination on November 5th, 6th and 7th, 1974, for which this lawsuit is brought. The defendants have the burden of proof on this issue. "Preponderance of the evidence" is explained in one of the foregoing instructions, but it essentially means that something is more likely true than not true.

Thus, if you believe that the evidence has established that it is more likely true than not that Karen Silkwood intentionally removed plutonium from the Cimarron facility, you must answer this question "yes." If, however, you find the weight or value of the evidence is to the contrary, or does not convince you either way, so that you cannot affirmatively find that her intentional removal of plutonium is any more likely than not, then you must answer "no" to this question.

A finding that Karen Silkwood intentionally removed plutonium from the facility results in a verdict for both defendants, and you must not answer any further questions. Thus, if you answer the first question "yes," you should so indicate on the verdict form and return it to the Court. You must not continue to answer further questions. A finding to the contrary, or a "no" answer to the first question, requires that you continue to answer the remaining questions.

A "no" answer to the first question results in the imposition of liability of Kerr-McGee Nuclear Corporation because of the legal doctrine of strict liability that controls this case. If you cannot find that Silkwood intentionally carried from work to her apartment the plutonium that caused her contamination, it is unnecessary for you to decide how plutonium escaped from the plant, how it entered her apartment, or how it caused her contamination, since it is a stipulated fact that the plutonium in Silkwood's apartment was from a defendant's plant.

The second question represents plaintiff's alternative theory for liability. It requires you to decide whether any negligence on the part of defendant Kerr-McGee Nuclear Corporation in the operation of the Cimarron facility caused or allowed the escape from that facility of the plutonium that contaminated Silkwood. Instructions on negligence have been presented in the body of

these instructions. The burden of proof on this issue, as stated elsewhere, is on the plaintiff.

The third question asks you to decide the amount of actual damages suffered by plaintiff's decedent, Karen Silkwood. An instruction defining what you should consider in reaching this determination is found in the foregoing instructions. This figure must include the amount of $5,000.00 for damage to property caused by plutonium contamination that has been stipulated by the parties. Any additional amount must reflect your dollar valuation of actual injuries to Silkwood's person, and any suffering and anguish caused thereby. The burden of proof on the nature and extent of damage remains on the plaintiff.

The fourth question requires that you decide whether defendant Kerr-McGee Nuclear Corporation is the mere instrumentality of its parent corporation, defendant Kerr-McGee Corporation. The factors that you must consider are listed in a prior instruction. The burden of proof on this issue is on the plaintiff.

The fifth, and last question, permits you to award exemplary damages against the defendant or defendants and in favor of the plaintiff. The nature and purpose of exemplary damages are explained in a separate instruction. Whether an award of exemplary damages is appropriate, and if so, what amount that award should be, is a matter for you to decide in light of the law given you in that instruction and all the evidence before you. The plaintiff has the burden of proof on this issue.

As you have learned in that instruction, you may consider the financial worth of the defendants as one factor in determining the amount of any such award. However, if you have answered "no" to question four above—if you find that the Nuclear Corporation subsidiary is not the instrumentality of its parent, Kerr-McGee Corporation—then you may only consider the financial worth of

defendant Kerr-McGee Nuclear Corporation, and not the two corporations combined, in determining the amount that is appropriate. If your answer to question four is "yes," you may consider the combined worth of both defendants in determining the amount of such an award.

INSTRUCTION NO. 21

You are instructed that a corporation is entitled to the same fair and unprejudiced treatment and consideration as an individual under like circumstances. A corporation can act only through its officers and employees, and the conduct of an officer or employee of a corporation is the conduct of the corporation.

INSTRUCTION NO. 22

There are, generally speaking, two types of evidence from which a jury may properly find the truth as to the facts of a case. One is direct evidence—such as the testimony of an eye witness. The other is indirect or circumstantial evidence—the proof of a chain of circumstances pointing to the existence or non-existence of certain facts.

As a general rule, the law makes no distinction between direct and circumstantial evidence, but simply requires that the jury find the facts in accordance with the preponderance of all the evidence in the case, both direct and circumstantial.

INSTRUCTION NO. 23

Certain testimony has been given in this case by experts—that is, by persons who are specially qualified by experience or training and possess knowledge on matters not common to mankind in general. The law permits such persons to give their opinions regarding such matters. The testimony of experts is to be considered like any other testimony and is to be tried by the same tests, and should receive such weight and credit as the jury deems it entitled to, when viewed in connection

with all the other facts and circumstances, and its weight and value are questions for the jury.

INSTRUCTION NO. 24

During the trial of a case certain testimony may be read to you by way of deposition. The testimony of a witness who for some reason cannot be present to testify from the witness stand is usually presented in writing under oath in the form of a deposition. Such testimony is entitled to the same consideration and, insofar as possible, is to be judged as to credibility and weighed by the jury in the same way as if the witness had been present.

Sometimes, as in this case, a deposition may be used in the sense of showing a prior statement is purportedly inconsistent with in-court testimony of the witness. The jury may take it as a fact that the deposition testimony admitted by the Court accuraely reflects what the witness said at the time the deposition was taken.

INSTRUCTION NO. 27

At some risk of over-explaining these instructions, but with the intent of the Court to place some of the evidence in this case in perspective in relation to the issues of the case, the Court gives you this instruction, which is somewhat in the nature of a legal commentary on the total scope of the instructions in the jury's use of them as legal guides in their deliberations.

You will recall that the evidence in the case began with evidence on behalf of the plaintiff that the chemical substance or element of plutonium was one of the most toxic and dangerous substances ever to confront man, and that it was a man-made element. This evidence was admitted to show the ultra-hazardous or extremely dangerous nature of the substance and the operation of a plant in either the fabrication of nuclear materials or for use as a source of energy, and to ulti-

mately indicate a sound basis required by the public interest for the application of the legal doctrine of strict liability, one of the plaintiff's claimed legal bases of recovery on the one hand, or the duty or obligation of individual persons or corporations engaged in the nuclear industry to use the highest or utmost degree of care in running their plants under the plaintiff's second theory of liability—which is negligence.

It follows then, that the danger of the substance and in its fabrication or use, and the indication of the highest degree of care by the handler of the substance, sets the parameters of a handler's conduct in the running of its plant which may open the door wider to imposition of exemplary or punitive damages. To keep other handlers within the high care limitations and thus deter any repeated or future occurrence of such conduct showing a lesser degree of care, you may want to consider circumstances between judging individual and corporate conduct. While your legal duty is to use the same standards of judgment of conduct on both an individual and a corporation which, as has been explained to you, is an artificial legal person, your common sense may allow you to find that the individual is guided by his own action, conscience and thoughts, while a corporation is a group of persons, small or large, associated together to accomplish the corporate purpose whose actions or conduct can only be judged by how management and employees do their job, whose collective conscience or mental attitude may be illusive, and certainly different than religious, moral, philosophic, and knowledgeable currents that exist in a human mind and determine conscious human activity or good conscience.

Punitive damages, in the last analysis, involve the element of bad thought, lax conscience, or "don't care" attitude, as more fully explained in the exemplary damage instruction. Government regulations of a governmental agency on conduct in a given field, are to keep some-

thing in social bounds as determined by the people who constitute government at legislative or executive levels. As indicated in other instructions, these regulations are based on the government's view of the best scientific and technical knowledge available at the time of their issuance or promulgation. Thus, in a democracy such as ours where the government responds to citizens' desires through the elective process, such regulations therefore can be deemed to reflect a broad base of citizen approval and as such are entitled to a high degree of respect and belief. On the other hand, you, as jurors, and as fact finders in a trial in our judicial system, have the duty of finding truth under the evidence. In this context, and as explained in previous instructions, such regulations do not have to be accepted by you as right or accurate if they defy human credence, are questionable under best scientific knowledge, or can be shown not to accomplish their intended purpose.

In this case one of the defendants' defenses is "substantial compliance" with the regulations regulating the nuclear industry and the Kerr-McGee nuclear plant in particular. Compliance itself is a broad term implying two things: one, that the conduct of the one complying was in complete accord with the standards of the regulations; and two, that there was adequate inspection and enforcement by the agency supervising the regulation to accurately determine the complier's conduct would amount to or constitute compliance. The defendants are not themselves claiming full compliance in this case.

The phrase, or the words "substantial compliance" therefore, is something less than compliance, and perhaps is confused by flexibility in meaning of the word "substantial," but still suggests in the light of common sense that most or a very large amount of the requirements dictated by the regulations had been done. Thus, corporate conduct of compliance with these regulations is entitled to the strongest and probably conclusive con-

sideration by a jury as negativing or proving lack of bad conduct necessary to base punitive damages, unless the total evidence convinced the jury either that the regulations were not sound or true when measured by the weight of the scientific knowledge, or that the conduct was actually in violation of the regulations, or that the enforcement agency did not actually enforce, or that the person against whom a particular regulation was to apply knew or should have known that it would not accomplish its intended purpose. On the other hand, "substantial compliance" being less than compliance itself, would indicate that strong consideration be given by you that a complier's conduct was not in the punitive category unless you find one or more of the above limiting factors to be applicable. You may also consider in determining substantial compliance what conduct in a dangerous instrumentality such as the Kerr-McGee nuclear plant was not covered by regulations and which you determine would violate a reasonable man's standard of due care as should be applied in such circumstances.

Neither side of this case has advised the Court nor introduced evidence before the jury identifying or pointing out all the specific regulations relied on as relevant to contentions of either compliance or noncompliance, or as to further explain the phrase "substantial compliance."

The total regulations of the Atomic Energy Commission (AEC), which was the regulatory body at the time of the events of the Silkwood contamination and prior thereto, are too numerous for production for this jury, although the content of certain regulations has been introduced in evidence or been testified about before the jury. Also, the voluminous license of the Kerr-McGee nuclear plant has been introduced in evidence before the jury. Likewise, many AEC regulation and license conditions are outside the scope of contentions in this trial, and compliance with them would not be any kind of

shield against finding of any degree of negligent conduct. Those in the health and safety areas are the regulations to be focused upon by the jury in the light of the evidence and the statements of counsel.

The testimony and statements of counsel agree that the regulations of nuclear plant regulation have changed little between November 9, 1974, and the time frame of this trial. It is therefore most important that the jury always remember that in judging health and safety standards in the regulations that they are bound by what was known in scientific circles of the world and this country in 1974 and prior thereto, and not upon changes in scientific opinion that occurred after 1974.

INSTRUCTION NO. 28

On numerous occasions during the course of this trial the Court has admonished you to refrain from reading or listening to any of the many media accounts focusing on the national debate on the relative wisdom and safety of nuclear development. During selection of the jury for this case, the Court asked each of you whether you had any preconceived ideas or feelings on the subject of nuclear energy. On the basis of your answers, and in reliance on your sworn oath to abide by the Court's admonitions, this Court and the parties before you have faith that you can decide the instant questions fairly, and without bias or influence from any public information, commentary, or opinion on this case or on issues not presented by it.

The issues in this case have been explained to you in these instructions. The sole evidence upon which you must rely in resolving them has been presented to you in this courtroom. In reaching your determinations, you are not to take into consideration any aspect of the public debate on the controversy over nuclear power. Your resolution of this case must solely relate to events and

circumstances that occurred in the Cimarron facility that relate to the injuries to Karen Silkwood, if any, in light of the dangerousness of that facility activity. You must not intend the consequences of your verdict to reach beyond these facts, nor to play any role in the resolution of the public inquiry into the wisdom of nuclear development.

Your consideration of whether to award punitive damages in this case, if your findings bring you to that issue, may include the decision on what amount of award would be appropriate to deter these defendants, and others like them, from engaging in acts similar to those you have found in this case to be blameworthy, if any, according to these instructions. In this sense, your verdict may, if you find it appropriate, include damages intended as an example to others not before you, wherever they be, in connection with conduct like that evidenced in this case.

In final essence, your verdict must not be based upon any intention to encourage or discourage conduct not within the parameters of this case.

INSTRUCTION NO. 29

The Court has made certain rulings in the conduct of the trial, and particularly with reference to the admission of evidence. In so doing, the Court has not expressed or intimated in any way the weight or credit to be given any evidence or testimony admitted during the trial, nor indicated in any way the conclusions to be reached by you in this case.

In this Court, it is entirely proper for the Judge, if he so desires, to comment on the evidence and express an opinion thereon to the jury. I am not going to do that in this case. I feel that this jury is fully capable of deciding the true facts in this case and applying the applicable rules of law to those true facts. If there is

anything that I have said or done that might seem to indicate to you how I would decide this case, I instruct you to disregard the same and use your own judgment in arriving at your verdict in this case.

Also, I instruct you that while it is the duty and right of counsel to address you and to explain the testimony to enable you better to understand the questions which you are to decide, yet if counsel inadvertently mistake the law or misstate the evidence, you will follow the law as given to you by the Court in these instructions and not as stated by counsel, and you will take the evidence detailed by the witnesses and shown by the documents introduced instead of the statements of counsel.

In this connection, while I am on the subject of lawyers, you should use particular care not to mix your individual thought or reaction to the personality or trial tactics of the lawyers on either side with the merits of the lawsuit based on the issues of law and the evidence presented here in court.

You are the judges of the facts, the weight of the evidence, and the credibility of the witnesses. In determining such weight or credit, you may consider the interest, if any, which a witness may have in the result of the trial, the relation of the witness to the parties, the bias or prejudice, if any has been apparent, the candor, fairness, intelligence and demeanor of the witness, the ability of the witness to remember and relate past occurrences, and means of observation and his opportunity of knowing the matters about which the witness has testified. If you find that any witness has willfully testified falsely concerning any material matter, you have a right to distrust the testimony of that witness in other matters, and you may reject all or part of the testimony of that witness, or you may give it such weight or credibility as you think it deserves.

From all the facts and circumstances appearing in evidence and coming to your observation during the trial, and aided by the knowledge which you each possess in common with other persons, you will reach your conclusions. You should not let sympathy, sentiment or prejudice enter into your deliberations, but you should discharge your duties as jurors in an impartial, conscientious and faithful manner under your oaths and return such verdict as the evidence warrants when measured by these instructions. These instructions contain all the law, whether statutory or otherwise, which may be applied by you in this case and the rules by which you should weigh the evidence and determine the facts in issue. You must consider the instructions as a whole and not a part to the exclusion of the rest. You will not use any method of chance in arriving at a verdict, but base it on the judgment of each juror concurring therein.

Upon retiring to the jury room, you will select one of your number to act as foreperson. Thereafter, such person will preside over your deliberations and be your spokesperson in court.

A verdict form has been prepared for your use in this case in accordance with your duty under these instructions. I think the proper use of this form in reporting your verdict will be obvious to you; but should you desire any further help in deciding how to use the form, please advise the Court through your bailiff.

If it becomes necessary during your deliberations to communicate with the Court, you may send a note by the bailiff. But bear in mind that you are not to reveal to the Court or any person how the jury stands, numerically or otherwise, on this matter.

The bailiff will come forward to be sworn.

VERDICT

We, the jury in the above entitled case, duly impaneled and sworn upon our oaths, answer the questions submitted to us as follows:

1. Do you find by a preponderance of the evidence that Karen Silkwood intentionally—that is, knowingly and consciously—carried from work to her apartment the plutonium that caused her contamination?

Yes ☐ No ☐

[If your answer to Question No. 1 is "Yes," do *not* answer any further questions and return to report this to the Court. If your answer is "No," then you must answer the remaining questions.]

2. Do you find by a preponderance of the evidence that Kerr-McGee Nuclear Corporation was negligent in its operation of the Cimarron facility so as to allow the escape of the plutonium from the facility and proximately cause the contamination of Karen Silkwood?

Yes ☐ No ☐

[If you have answered Question No. 2, then you must continue on to Question No. 3.]

3. Enter the amount of actual damages, as defined in the Court's instructions, that you find Karen Silkwood suffered.

$\$$———

[If you have answered Question No. 3, then you must continue on to Question No. 4.]

4. Do you find by a preponderance of the evidence that Kerr-McGee Nuclear Corporation is the mere instrumentality of the parent corporation, Kerr-McGee Corporation?

Yes ☐ No ☐

[If you have answered Question No. 4, then you must continue on to Question No. 5.]

5. If you find that an award of exemplary damages is appropriate, as defined in the Court's instructions, enter the amount of exemplary damages that you award plaintiff.

$\$$_____

[Question No. 5 is the last question for you, the jury, to consider. After completing those questions which the form indicates are appropriate in light of your findings, you should return this verdict form to the Court.]

_____

Foreman

_____

Date

APPENDIX E

UNITED STATES COURT OF APPEALS
FOR THE TENTH CIRCUIT

JULY TERM—September 25, 1985

Before Honorable James E. Barrett, Honorable William E. Doyle, Honorable Monroe G. McKay, Honorable James K. Logan, Honorable Stephanie K. Seymour and Honorable John P. Moore, Circuit Judges

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No. 79-1894

BILL M. SILKWOOD, Administrator of the Estate of Karen G. Silkwood, Deceased,
Plaintiff-Appellee,

v.

THE KERR-MCGEE CORPORATION, a Delaware corporation, and KERR-MCGEE NUCLEAR CORPORATION, a Delaware corporation,
Defendants-Appellants.

This matter comes on for consideration of:

1. Appellants' petition for rehearing;

2. Appellants' petition for certification of question of state law to the Supreme Court of Oklahoma;

3. Appellee's motion to file petition for rehearing in excess of 15 pages;

4. Appellee's untimely petition for rehearing and suggestion for rehearing en banc.

Upon consideration whereof, the Court orders as follows:

1. Appellants' and appellee's petitions for rehearing are denied by the panel that rendered the decision sought to be reheard;

2. Appellants' petition for certification of question of state law to the Supreme Court of Oklahoma is denied;

3. Appellee's motion to file petition for rehearing in excess of 15 pages is granted;

4. Appellee's untimely petition for rehearing and suggestion for rehearing en banc is ordered filed as of September 3, 1985;

5. The petitions for rehearing having been denied by the panel to whom the case was argued and submitted, and no member of the panel nor judge in regular active service on the Court having requested that the Court be polled on rehearing en banc, Rule 35, Federal Rules of Appellate Procedure, the suggestion for rehearing en banc is denied.

/§/ Howard K. Phillips
HOWARD K. PHILLIPS
Clerk